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Effectiveness of a Brief Parent Training Intervention

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EFFECTIVENESS OF A BRIEF PARENT TRAINING INTERVENTION

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Dissertation Approval

This is to certify that the thesis presented to us by Brian Legg

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Abstract

This study examined the effectiveness of a brief parent-training intervention in reducing defiance in children. Four African American single mothers with children demonstrating clinically diagnosable levels of defiance participated in this study. Parental stress and general maladaptive behaviors of children were evaluated pre and posttreatment. In addition, participants completed treatment-satisfaction questionnaires to assess the perceived value of the accommodations and training structure. Results indicated some reduction in child defiance in three of the four participants. Parental stress and overall child maladaptive externalizing behaviors were both reduced over the entire study for two participants. Participants reported that the flexibility of individually scheduled sessions, child-care coverage, and relative brevity of treatment greatly increased their ability to actively engage in treatment. Although this intervention was piloted with a small number of participants, it provides preliminary support for including parental accommodations to facilitate treatment attendance and completion.

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Chapter 1: Introduction

Statement of the Problem

Defiance in children can be manifested through various behaviors, such as temper tantrums, inappropriately objecting to task demands, and poor compliance with adult prompts, rules and regulations (Garbarino, 1995). A child can begin to show signs of defiance as early as four or five years-old. Parents often do not address defiance at this stage and may dismiss behaviors as part of the child's development (Keat, 2008). Early intervention can help prevent defiance from developing into a typical behavioral pattern for children. Unfortunately, children who don't improve defiant behaviors will begin to exhibit defiance outside of the home setting and towards teachers when they become school aged (Garbarino, 1995).

Defiant behaviors can directly impact the child's educational development. Defiance in the school setting can result in poor academic performance, suspension, or expulsion (Garbarino, 1995). Teachers report that defiance in a classroom setting is the most difficult behavior to manage. Defiance in a classroom is demonstrated by children refusing to perform tasks, disrupting other students' attention, and engaging in verbal aggression against peers and teachers (Keat, 2008) The consequences of defiant behaviors may not only impact the quality of education they receive but strain the parent-child relationship.

Defiant behavioral patterns result in various short- and long-term consequences. Long-term consequences of defiance can include incarceration, poor social skills, and difficulty following societal rules and norms (Axelrod, Garland, & Love, 2009). In addition to poor school performance, the development of a strained parent-child

relationship may be another short-term consequence (Axelrod et al., 2009). Improving the strained parent-child relationship is a major focus of current effective treatments for defiance in children.

Parent-training interventions have been identified as the most effective treatment for decreasing defiance in children (Brestan & Eyberg, 1998; McMahon, 2006; Bierman & McMahon, 2009). Empirically supported parent-training interventions for reducing defiance in children include Barkley's Defiant Children Program (Barkley, 1997), The Incredible Years Parenting Program ([IYP]; Webster-Stratton, 2001), Parent Management Training ([PMT]; Kazdin, 2005), and Parent- Child Interaction Therapy ([PCIT]; Eyberg & Robinson, 1982). Although these treatments differ in structure, they share a common goal of reducing defiance and increasing parental knowledge and skills. Just as the parent trainings have common goals, they have common limitations that directly influence the effectiveness of the interventions on specific populations.

Dropout rates are a consistent concern among all empirically supported parenting programs (Lyon & Budd, 2010). Nock and Kazdin (2005) investigated high dropout rates for PMT by adding a brief scale assessing motivation and potential barriers to treatment. Results indicated that adding the measure and identifying possible barriers to treatment attendance did not improve dropout rates for the PMT intervention (Nock et al., 2005). Factors causing failure to complete PMT included family demographic characteristics (Frankel & Simmons, 1992) and the accessibility of service (Harrington et al., 2000).

Socioeconomic disadvantage is one factor identified by researchers as a major contributor to poor treatment completion (Lundahl et al., 2006; Orrell-Valente et al., 1999). Research shows that economically disadvantaged parents tend to receive less

benefit from existing parent trainings than parents from more affluent socioeconomic groups (Lundahl et al., 2006). Socioeconomic factors identified beside low family income included living in a single-parent household and ethnic minority status (Dumas & Wahler, 1983; Armbruster & Fallon, 1994).

Existing parent-training programs (Barkley, 1997; Webster-Stratton, 2001) have found treatment less effective for single parents than for two-parent families. One factor identified as contributing to the difference in results between the single-parent and two-parent populations is session content (Gross et al., 2009). Assignments associated with current parent-training programs, such as reward systems, may be highly time consuming and stress inducing (Gross et al., 2009; Barkley, 1997). Another factor identified as contributing to treatment ineffectiveness for a single-parent population is treatment accommodations (Dumas & Waller, 1983).

Accommodations in treatment implementation and structure can help increase single-parent participation in parent trainings. Single-parent participants have reported lack of child-care, lack of transportation, and conflicts with other scheduled appointments at the time of parent training as the main reasons for missing sessions (Assemany & McIntosh, 2002). Because these factors were found to be obstacles to treatment access, such accommodations as individually scheduling sessions and having child-care available for parents may enhance treatment compliance and completion (Gross et al., 2009). Addressing these barriers to treatment is only one step in addressing the needs of a single parent-population. Adjustment of session content for the specific population receiving the intervention can also help increase compliance and effectiveness (Orrell-Valente et al.,

1999). Existing parent trainings were normed and intended for middle-class, two-parent Caucasian families (Barkley, 1997; Webster-Stratton, 2001; Eyberg & Robinson, 1982).

According to Kazdin and colleagues (2003), African Americans are more likely to drop out of parent-training interventions than Caucasians. When African American participants attend treatment, levels of engagement and participation in the parent-training process are low (Orrell-Valente et al., 1999). African American parents have identified the following reasons for not completing treatment: a lack of connection to material, the length of treatment, and an inability to implement strategies in everyday interactions (Lyon & Budd, 2010; Bernal & Scharro-Del-Rio, 2001). Parent-training programs for low-income African American single parents may want to consider modifying both treatment length and treatment content to enhance effectiveness (Armbruster & Fallon, 1994; Kazdin et al., 2003).

Axelrod, Garland, & Love (2009) examined how treatment length affects compliance and effectiveness. They conducted a study to assess how many parent training-sessions were completed prior to dropping out of treatment. Treatment was shown to be effective in reducing disruptive and oppositional behaviors of children in an average of 7.2 sessions, according to parent reports (Axelrod et al., 2009). These findings lent support to the idea that interventions of seven sessions can have a positive effect on improving behaviors in comparison to typical treatments, which range from 10 to 20 sessions (The Defiant Child, IYP). Treatment effectiveness is based not only on length of treatment but also content of sessions.

African American parents' poor response to parent trainings has been linked to participants lacking a connection with session content (Bernal et al., 2001). Session

content may not resonate with low-income African Americans single parents, resulting in poor response to parent-training interventions. Inclusion of a cultural component in parent-training models has been shown to increase program responsiveness and completion among African American single parents (Canning & Fantuzzo, 2000).

An important feature of African American parenting is racial socialization (Coard et al., 2004). Incorporating racial socialization may help improve African American's connection to session content. It has been reported that the more parents engage their children in specific racial socialization practices, the more their children improved in socioemotional functioning (Bowman & Howard, 1985), interactions with their parents (Frabutt, Walker, & Mackinnon-Lewis, 2002), and behavioral competency (Caughy et al., 2002).

Existing parent trainings have limitations that influence the effectiveness of treatment for a low-income African American single-parent population. Unfortunately, this population is in need of learning effective ways to decrease defiance in children (Valente & Laird, 1999). Treatment intended for a low-income single-parent population should address concerns with treatment length, session times, lack of child-care, time-consuming homework, and relevance of session content.

Purpose of the Study

This study tested the effectiveness of an intervention focused on helping parents reduce defiant behaviors in their children. This study assessed whether learning new parenting skills to manage children's defiant behaviors affected parental stress levels and overall childhood maladaptive functioning. The intervention is tailored to address the needs of low-income single-parent households in the African American population. Because an obstacle to completing prior parent-training programs was the length of treatment, which results in high dropout rates, this intervention was implemented for a short duration of five sessions. Furthermore, to minimize possible barriers to treatment attendance, child-care services were provided during treatment, and sessions were conducted individually rather than in a group format that is more typical of parent-training programs. A culturally sensitive model that integrates racial socialization practices was used to develop more appropriate session content for an African American population. Therefore, culturally specific content may result in higher parenting-program success rates for African Americans than in existing parent training programs. The new parenting program addressed common problems for low-income single-mother African American participants with treatment length, poor connection to material, difficulty scheduling sessions, and difficulty finding child-care while receiving treatment.

Chapter 2: Literature Review

Defiance

Defiance is often associated with maladaptive behaviors patterns. However, people who are defiant may be able to utilize defiant characteristics to develop integrity and stand up for what they believe in (Redl, 2007). The context and presentation of the defiance will often determine how the defiance is addressed. There are four dimensions of defiance as identified in the literature (Redl, 2007; Garbarino, 1995). Understanding which type of defiance is present can help to develop effective and appropriate interventions if needed.

One dimension of defiant behavior is identified as developmental defiance. Developmental defiance refers to the strengthening of the child's ability to defend his/her own integrity against improper demands (Redl, 2007). Developmental defiance (intelligent rebellion) is something that parents may expect from their children to avoid negative peer pressure. Defiance will help the child resist being strong-armed into engaging in behaviors that they know are wrong (Keat, 2008).

Using defiance as a masking mechanism is another dimension of defiant behavior. A masking or wrapping mechanism refers to cases in which the defiance is unprovoked and utilized by the child to hide symptoms of other mental health concerns (Redl, 2007). Parents can help reduce frustration with their child's behaviors by understanding why defiance occurs. The most effective treatment for masking or wrapping defiance is to develop an understanding of the child's underlying concerns and address them accordingly (Redl, 2007).

The third dimension of defiance is reactive defiance. Reactive defiance refers to children acting out defiantly as a result of their environment. Therefore, changing the child's home environment may help decrease defiant behaviors (Redl, 2007). The most effective way to treat reactive defiance is to the address the family and child's environment as a whole. A crucial part of treatment is to educate the parents about the role they play a role in the child's defiant behaviors (Keat, 2008).

The defiant ego is the most difficult dimension of defiance to manage and treat (Redl, 2007). Defiant ego refers to children engaging in defiance, because they enjoy doing so. Children with this type of defiance will not be interested in changing their behavior because of the ego-syntonic nature of their defiance (Redl, 2007). These children are most likely to engage in illegal behaviors and can suffer from long-term consequences from their defiant behaviors, including poor social relationships, poor responses to societal rules, and incarceration (Axelrod et al. 2009). Current treatment aims at preventing reactive or masking defiance from becoming a defiant ego. As a result, early intervention can have the most impact on decreasing defiance (Redl, 2007; Keat, 2008).

Current treatments for defiance vary in the amount of empirical support they receive in the literature. Systems Family Therapy (Lee at al., 2009), Reciprocal Skills Training (Barrett et al., 2000; Johnson & Waller, 2006), and Interpersonal Skills Training (LeCroy, 1988) are three empirically supported therapies for defiance. These therapies work primarily with the children and not the parents. Although these therapies (SFT, IPST, RST) have shown a wide range of effectiveness in decreasing defiance levels in children, parent-training interventions have been identified in the literature as the best

treatment option for reducing defiance in children (Brestan & Eyberg, 1998; McMahon, 2006; Nix, Bierman, & McMahon, 2009).

Parent-Training Programs

Parents learn new skills and how to manage negative behaviors of their children effectively through parent-training programs. Parent-training programs were also developed to improve children's behavior control by teaching them positive ways to manage negative situations or emotions. Some of the parent trainings with the greatest empirical support are Barkley's Defiant Children parent training, the Incredible Years parenting Program (IYP), Parent Management training (PMT), and Parent-Child Interaction Therapy (PCIT).

Barkley's Defiant Children Parent Training.

Defiant Children (Barkley, 1997) is a behavioral parent-training program that helps parents manage defiance in their children. The Defiant Children program, a ten-session treatment administered in either group or individual sessions, has five main goals. The five goals of the program include three parent and two child improvements. The parenting goals are developing an understanding of why the child misbehaves, establishing proper disciplinary systems without using corporal punishment, and learning to utilize a home reward system to influence negative school-based behaviors positively. The child's goals are increasing motivation to behave appropriately and decrease disruptive behaviors (Barkley, 1997). Early sessions are directed at teaching parents about why children misbehave and learning positive ways to spend time with the child. The parents are taught to pay attention to positive behaviors by the child and to utilize positive praise to ensure that the child knows his/her positive behaviors are being

recognized. They are also encouraged to engage the child in independent play activities to improve the parent-child relationship (Barkley, 1997). To improve negative behaviors in school, the parents are taught how to utilize a reward system. Once parents are able to advance past these initial stages of treatment, parents are taught effective ways to implement consequences for negative behaviors, including time-out, extending time-out for more severe behaviors, and anticipating behavioral problems in public settings (Barkley, 1997).

Anastopoulos and Sommer (2008) addressed the effectiveness of the Defiant Children parenting program for an attention-deficit hyperactivity disorder (ADHD) population. Participants were 117 children referred to an outpatient clinic for ADHD symptoms. Children were assigned to either the Defiant Children parenting program or traditional didactic ADHD counseling. Parents who received the parent training reported more extensive knowledge of contingency-management and positive-parenting strategies in comparison to the didactic ADHD group (Anastopoulos & Sommer, 2008). Significant reductions in defiant symptoms of ADHD and improved emotional functioning of the child were evidenced in trained parents in comparison to untrained parents. Both groups showed improvements in parenting stress, parenting self-esteem, and parenting alliance (Anastopoulos & Sommer, 2008). Various other studies have lent support to this treatment (Lehner-Dua 2002; Barkley, Edwards, Laneri, Fletcher, and Metevia, 2001; Dishion, 2002; Anastopoulos, Shelton, and DuPaul, 2003).

The Incredible Years Parenting Program

The Incredible Years Parenting Program (IYP) was developed by Webster-Stratton in 1982. The program is built upon a collaborative model that emphasizes the

parents' ability to learn and implement novel problem-solving techniques. IYP also emphasizes the importance of parents' decision-making ability with appropriate follow-up to the decisions that are made (Webster-Stratton & Hammond, 1997). IYP utilizes videotapes in the sessions, which comprise about 20% of therapy content. Videotapes are used to model appropriate and effective parenting strategies in various situations. The visual and auditory aids have shown to be effective in long-term learning and implementation of treatment interventions (Reid, Webster-Stratton & Hammond, 2003). There are two main treatment goals for this protocol. The first is to improve child competency and social skills. Increasing child competency and social skills is accomplished by increasing positive social play, learning problem-solving techniques, and learning anger-management skills. The second goal is to improve parenting skills and strengthen family connections. This 12-week training has been found effective in an inpatient hospital setting with children from a two-parent household (Webster-Stratton, 2001).

Taylor and colleagues (1998) conducted research assessing the effectiveness of IYP in comparison to *eclectic individual* therapy (identified as traditional psychotherapy without programmatic treatment) and to a control group. Researchers gathered information on the manifestation and frequency of defiance and other forms of misconduct. Participants were recruited from an outpatient family clinic specializing in disruptive childhood behaviors One hundred and ten participants, ranging from 3-8 years of age, were evenly divided between the three groups. Results showed significant reductions in frequency of children's defiant behaviors after treatment with IYP in comparison to the eclectic and control groups (Taylor et al., 1998).

Webster-Stratton and colleagues (2004) also tested the effectiveness of IYP. One hundred and nine children, ages of 4-8 with a mental health diagnosis of ODD, were randomly assigned to a treatment or wait-list control group. Results showed a significant reduction in defiant behaviors in both home and school for the treatment group in comparison to the control group (Webster-Stratton, Reid, Hammond, 2004).

Parent Management Training.

Parent Management Training is an alternative parent training to IYP. Parent Management Training (PMT) is a 16-week intervention that focuses on improving parenting styles to influence children's behavior positively. According to Nock & Kazdin (2005), inept parenting styles are associated with child misconduct and defiance. PMT is a skill-based training that helps parents change their parenting behaviors. As a result, the improved parenting behaviors should positively influence the child's behaviors (Nock et al., 2002). In particular, the parents are taught the positive reinforcement techniques of shaping, negotiating, and contracting. A reinforcement schedule involving the child's teacher is also put into place following several weeks of initial parent training (Nock et al., 2002). The program has significantly reduced defiant behaviors and increased positive communication between parents and their children (Kazdin, Siegel & Bass, 1992).

Hagen and colleagues (2011) further researched the effectiveness of PMT on decreasing negative childhood disruptive behaviors, such as misconduct and defiance. One hundred and twelve children, ranging from 4-12 years-old, were randomly assigned to either a PMT group or a *treatment-as-usual* group. Treatment-as-usual was defined as traditional individual psychotherapy. Effects of the study were assessed following the

intervention and in a one-year follow-up. Children in the PMT group showed greater reduction in disruptive behaviors compared to the treatment-as-usual group (Hagen et al., 2011). Teachers of the children also reported better overall reduction of negative behaviors and increased rule following for those who received PMT. Parents of the trained children reported higher levels of family cohesion than the treatment-as-usual groups. All of these improvements continued over the one-year follow-up period (Hagen et al., 2011).

Parent-Child Interaction Therapy

Another empirically supported parent-training intervention is parent-child interaction therapy. Parent-child interaction therapy (PCIT) is a 14 to 20-week intervention developed to build positive relationships between the parent and the child and to teach the parent effective ways to handle the child's negative behaviors (Johnson & Waller, 2006). Eyberg and Robinson (1982) created PCIT in an effort to establish a parent training that focused heavily on established parenting, social learning, and attachment theories. The parent training comprises two successive phases. The first phase of child-directed interaction focuses on strengthening the parent-child relationship by coaching parents on their use of non-directive play therapy skills. These skills are designed to support social interactions and increase the use of positive praise (Weisz, Doss, & Hawley, 2005). Following this initial phase, parent-directed interaction is used to build on skills learned in the first phase and to teach new skills of giving parental commands. The parents used limit setting and consistent follow -through with consequences for not listening to a command to increase compliance and decrease defiant

behaviors (Weisz et al., 2005). The treatment proved to be effective after the parents learned these new skills.

Timmer and colleagues (2010) conducted a study to assess whether PCIT was effective in reducing defiance in both children who did or who did not experience violence in the home. Researchers recruited 129 low-income mother-child dyads for the study from a community mental health center. The participants were assigned to a treatment group, a treatment-as-usual group, or a control group. Subjects assigned to a treatment group were then assigned to either the PCIT treatment group for defiance in children or the PCIT treatment group for defiance in children who experienced violence in the household. Results showed reductions in defiant behaviors in both treatment groups (Timmer et al., 2010). Children also responded more appropriately to adult prompting and communicated more openly with parents in both treatment groups as compared to the control group. Parents reported increased time spent with their children without worrying about the child's negative behaviors (Timmer et al., 2010).

Hood and Eyberg (2003) conducted a three- and six- year follow-up to previous studies that showed PCIT decreased childhood defiance. Researchers gathered the results from studies conducted from 1993 to 1996 and followed-up with the participants of these studies. All 28 of the participants reported positive behavioral changes at both the three- and six-year follow-up. Twenty-three of the 28 participants reported significant improvements following treatment completion (Hood & Eyberg, 2003). The sustainability of skills learned and improvements made as a result of the PCIT program is evident. However, there are consistent concerns about the length of PCIT affecting program completion and adherence (Hood & Eyberg, 2003).

The effectiveness of the treatments described is heavily contingent upon completion of the treatment. (LeCroy,1988). Parents who are unable to transport their children to weekly sessions or unable to attend sessions themselves are unlikely to benefit from treatment. Difficulties with attending sessions can be more problematic for single-parent families, which typically experience more financial hardship, transportation concerns, and need for child-care support than two-parent families (Eyberg, Nelson, & Boggs, 2008). Effective treatment of childhood defiance for a single-parent family may need to take into account these obstacles.

Single Parents

The single parent population is steadily growing throughout the United States. In the United States, there were 1,714,643 births to unmarried mothers (40% of all births) in 2007, which was a 26% increase from reports gathered in 2002 (Hamilton, Martin, & Ventura, 2008). Single-parent households accounted for 29.5% of all households with children in the United States as of 2008, a 2.5% increase from 2000. The African American population makes up 67% of total single-parent households across the country; Pennsylvania's rate is 6% higher than the national average (U.S. Census Bureau, 2009). Researchers intending to develop parent-focused treatments may want to increase understanding of the growing single-parent culture.

Single parents have to handle the daily responsibilities that come with caring for a child. However, these responsibilities can be more difficult to manage, because only one parent provides for the family. As a result, daily responsibilities can quickly evolve into daily stressors (Bjørknes, Jakobsen, & Nærde, 2011). Therefore, basic needs of food,

shelter, and safety can become significant stressors for low-income single-parent households (Bowman & Harris, 2003).

Parental Stressors

In general, single-parent households have a lower income level than two-parent households and spend less money on food than two-parent households. As a result, these families may be *food insecure* (Bowman et al., 2003). Casey and colleagues (2001) identified food insecurity as either not having access to any food or to specific foods that members of a household prefer. Food insecurity directly impacts the quality and amount of food intake. A child who has food insecurity has less concern with the quality of food and more concern with the amount (Fitzgibbon et al., 2002). A basic need can devolve into a source of stress in a single-parent household.

Shelter is another basic need that can become more pressing when only one parent is providing for the family (Bassuk, Browne, & Buckner, 1996). Low-income single-parent families have a greater risk of homelessness than higher income two-parent families. The typical homeless family is a single mother in her mid 20s, with 1 or 2 children (Bassuk et al.,1996). Homelessness is a major stressor that may be difficult to avoid for low-income single-parent families. Families that are able to avoid homelessness can still be stressed by the possibility of an *unstable living situation* (McLloyd, 1990), which refers to moving frequently from one location to another. Children who move frequently are at high risk for having difficulty developing and maintaining social relationships. These children can also have difficulty reaching and maintaining high levels of academic achievement (McLloyd, 1990). In addition to academic and social

difficulties, frequent moving is associated with safety concerns as a result of living in socioeconomically disadvantaged areas.

Safety is a concern for most families; however, safety concerns become more pressing for families living in a socioeconomically disadvantaged area. A socioeconomic disadvantaged area is typically associated with a higher rate of crime and drug use (Sheely-Moore & Ceballos, 2011). Safety concerns are not only about drugs or crime in the neighborhood, but in school as well. Children in socioeconomically disadvantaged areas attend schools systems with higher crime rates (Deklyen, 2006). The concern about safety for low-income single parents encompasses any and all interactions of the child (Sheely-Moore & Ceballos, 2011).

Low-income single-parent households have the potential to experience more stress about everyday necessities (shelter, safety, food) than intact higher-income households. The heightened stress level of the low-income single-parent population may affect the parent's frustration tolerance and ability to manage new stress (Garbarino, 1995). The parent's inability to manage stress effectively can negatively influence behaviors of his/her child. The negative consequences of living in a stressful environment affect short- and long-term maladaptive behavior development of the child (Garbarino, 1995).

Parental Influence on Child's Behaviors

Parents play a major role in the behaviors exhibited by their children (Garbarino, 1995). The parent can be a positive influence by modeling effective behaviors and ways to manage daily stress. However, parents can also play a negative role by modeling poor behavioral responses to stress. The more frequent a child's exposure to either positive or

negative emotions, the more likely these emotions will appear in the development of his/her own personality (Garbarino, 1995). Hostility, frustration, and aggression exhibited by the parents in response to stress and anxiety are likely to be imitated by the children in the household (Garbarino, 1995). These behaviors can be manifested through many maladaptive coping methods, such as isolation, misconduct, and defiant behaviors.

Children from single-parent families are at a higher risk for drug use, imprisonment, suicide, and teen pregnancy (Patterson, Reid & Dishion, 1992). According to the Centers for Disease Control and Prevention (2010), 75% of children or adolescents in chemical dependency hospitals are from single-parent families. Children from single-parent households comprise more than half of all youths incarcerated for criminal acts and 75% of all teenage pregnancies. Sixty-three percent of all individuals who committed suicide were from single-parent households in 2011 (Centers for Disease Control and Prevention [CDC], 2011). Children raised in a single-mother home, especially from impoverished or underserved communities, are at an increased risk for adjustment problems, including psychological stressors and behavior problems (Barrett et al., 2005; Simons et al., 2006).

Hall and colleagues (2008) assessed the influence of maternal factors on children's behaviors. Researchers recruited 207 low-income single parents to participate in the study. The four parent factors assessed were chronic stressors, self-esteem, negative thinking, and depressive symptoms. Chronic stressors such as financial concerns, role overload, parenting worries, and interpersonal conflict were assessed. Chronic stressors had the highest correlation with negative externalizing behaviors by children, such as defiance and conduct problems. As indicated in this study, a parent's

negative behaviors may be associated with negative behaviors by his/her child. Single parents may struggle with being able to manage negative behaviors of the child, if they are also coping with the inherent stressors associated with being a low-income single parent (Berge et al., 2010). However, a single parent has equal opportunity to influence his/her child's behaviors positively (Garbarino, 1995).

Despite all of the potential negative influences, there are positive qualities in a single -parent household as well. Single parents have more interactions with their children out of necessity than parents from intact households (Eyberg, Nelson, & Boggs, 2008). This allows the single parent many opportunities to correct and improve child behavior (Axelrod et al., 2009). A single parent also has the opportunity to form a unique bond with his/her child, because the child relies on that parent for nurturing and support. That bond can foster positive change in the child (Axelrod et al., 2009). Parents who are able to overcome daily obstacles associated with the single-parent population can have a crucial positive influence on the parent-child relationship. Single parents can either positively or negatively affect the behaviors of their children (Berge, et al., 2010).

Risk factors associated with a low-income lifestyle influence the levels of stress and anxiety in a single parent household. Frequent exposure to potentially negative life events has been found to be a consistent predictor of socio-emotional maladjustment in adults and children (Compas & Williams, 1990). High levels of maternal stress may increase levels of irritation and frustration in the home, which can significantly impact parenting ability by increasing the chance of unsupportive parenting methods (Duncan, Brooks-Gunn, & Klebanow, 1994). If the child reduces his/her defiant behaviors,

however, the parent's stress associated with parenting will be reduced by not having to manage frequent negative behaviors.

Limitations to Parent Trainings

The single-parent population has shown less positive responses to parent trainings for various reasons. The limitations of a single parent's inflexible schedule and time restrictions have a direct impact on the effectiveness and completion of parent-training programs. Having participants fully complete a treatment protocol is imperative to providing an effective intervention (Assemany & Macintosh, 2002). High rates of premature termination result in a higher probability that parents may not utilize parent-training skills in daily parenting interactions. By not completing the treatment, they do not fully benefit from the parent training (Assemany & McIntosh, 2002).

Forehand and colleagues performed early meta-analytic research assessing dropout rates. Forehand et al. (1983) conducted a literature review of 45 studies utilizing parent-training programs published between 1972 and 1982. Of these 45 studies, only 22 (49%) contained dropout data. Currently, dropout rates are more readily accessible, as more studies provide insight into possible reasons for high dropout rates (Reyno & McGrath, 2006).

Reyno and McGrath (2006) conducted a meta-analysis of predictors of parent-training effectiveness and completion. Thirty-one studies, dating from 1980 to 2004, provided ample information on predictor variables for dropout and program effectiveness. Parent-training programs analyzed included PMT, PCIT, and behavioral parenting programs (Reyno et al., 2006). The significantly high dropout rates of these studies could impact the overall effectiveness of the studies (25-35%). Factors that were

most frequently reported included transportation obstacles to attending treatment, treatment demands and perceived relevance, and parent-therapist alliance (Reyno et al., 2006). There have been attempts by researchers to address the increasing concern with dropout rates for already supported treatments.

Szapocnik and colleagues (1988) developed the Participant Enhancement Intervention (PEI), composed of motivational enhancement techniques. The PEI is a brief additive to an intervention to help increase overall treatment efficacy. The PEI addresses potential barriers to program participation and completion, and provides parents with information about the importance of attendance and adherence while eliciting motivational statements for doing so. The PEI also helps parents to identify and develop plans for overcoming barriers to treatment that may occur (Nock et al., 2005).

Nock and Kazdin (2005) conducted an experiment utilizing the PEI to improve low attendance and completion rates of PMT. The PEI proved to have no impact on program participation and completion. Results indicated that the participants' attendance at treatment is not solely influenced by addressing potential obstacles to treatment discussed in the PEI, including motivation for treatment and importance of completing treatment. Other factors, such as session content and length of treatment, may have a more significant effect on completion of and participation in programs than those addressed by the PEI (Nock et al., 2005). Intervention length has been considered as a means to address dropout rates.

Axelrod and colleagues (2009) conducted an experiment assessing the use of five core behavioral parent-training sessions. Sessions were an hour in length. The participants were taught skills, such as active ignoring, proper punishment, and problem

solving. Participants were unable to advance in the training unless they demonstrated proficiency in the most recent session's content (Axelrod et al., 2009). The results indicated that of the 61 participants, only nine dropped out of treatment prior to completion. Participants completed the training in an average of 7.2 sessions. Defiant behaviors in children were reduced significantly in the 7.2 -session time frame on both the Behavior Assessment System for Children – 2 (BASC-2) and the Eyberg Child Behavior Inventory (ECBI) (Axelrod et al, 2009). Considering current empirically supported parenting programs' (Barkley = 10 sessions, PMT = 16 sessions, PCIT = 14 to 20 sessions, Incredible Years = 12 sessions) high rate of dropout and the results of the study by Axelrod and colleagues (2009), parent-training programs may have equal or greater effectiveness with a shorter duration of treatment. Although shortening the treatment intervention can positively influence dropout difficulties, the question of whether the session content matches the subject's needs still must be addressed.

Another limitation of already -established parent trainings is whether the session content is appropriate and applicable for diverse populations. Most of the well-established parent trainings (Barkley's Defiant Child Program, PCIT, PMT, and IYP) were normed and intended for a middle-income, two-parent Caucasian population. Three concerns arise from the way these interventions were established. The first is accommodating scheduling of interventions to better suit a low-income population. The second is whether the requirements of these programs are less feasible for single-parent than two-parent households. The third concern is whether effective Caucasian parenting techniques are congruent with minority parenting techniques.

The first challenge for already-established parent-training programs is if the typical group administration of the intervention can be accommodating enough for a low-income population. Low-income participants have concerns with attending treatment regularly due to transportation difficulties, child-care coverage, and work schedules (Armbruster & Fallon, 1994) Individually scheduled sessions may provide more flexibility to accommodate transportation difficulties and child-care concerns better. Parent- training programs, such as PCIT, were developed for middle-class participants, for whom attending inflexible session times may be less of a concern compared to low-income participants (Armbruster & Fallon, 1994).

The second concern relates to parents' increasing stress levels as a result of trying to complete complicated assignments that are a critical component of current parent-training programs. Assignments associated with parent-training programs may be highly time consuming and stress inducing (Gross et al., 2009). Barkley (1997) identified the implementation of a detailed reward system as a potential barrier and stress-provoking experience for single parents or low-income parents. A single parent may find reward systems difficult to keep track of because of the various amounts of stressors he/she may have to manage during a day. The use of a reward system in parent training is potentially beneficial, but the complexities of some reward systems can do more harm than good by increasing stress within the home (Nock & Kazdin, 2005). Utilizing a simplified behavior chart can help increase parental awareness of the child's behaviors but not cause further stress on the parent (Gross et al., 2009). Although session content adaptations associated with homework can help avoid unnecessary stress, content changes may need to involve cultural shifts as well.

The third concern for already-existing parent-training programs is the generalization of effectiveness shown with a Caucasian population to minority populations. Interventions that have focused on low-income families include a large number of African American participants, primarily due to the fact that African Americans are disproportionately represented in the low-income population (Choard et al., 2004). Despite that fact, many of the empirically supported parent trainings used to help low-income families and ethnic minorities were developed for and normed on a middle-class Caucasian population (Choard et al., 2004). As a result, ethnic minorities, specifically African Americans, have benefited inadequately from parent-training interventions. They have also shown consistently high dropout rates when being treated with current parent- training programs (Lundahl et al., 2006; Lyon & Budd, 2010; Bernal & Scharro´n-Del-Rı´o, 2001). African American participants have identified three main factors for not completing parent-training programs: a lack of connection to material, the length of treatment, and an inability to implement strategies in everyday interactions (Lyon & Budd, 2010; Bernal et al., 2001). Further evidence of the lack of generalization was evident when PCIT was used for African American participants.

PCIT lacks effectiveness with an African American population (Lyon et al, 2010). Lyon and Budd (2010) conducted a study utilizing PCIT for a single-parent low-income African American population in an outpatient clinical setting. PCIT was not adapted or changed from the original treatment. Results showed a significant decrease in defiance levels in African American children. However, in comparison to results from Caucasian participants, PCIT showed less significant results for African American participants (Lyon et al., 2010). The dropout rate of African American participants was significantly

higher than the dropout rate of Caucasian participants in previous studies (Weisz, Doss, & Hawley, 2005; Johnson & Waller, 2006). Dropout rates are not only a concern for parent training interventions for Caucasian participants but also for culturally specific parent training programs.

Culturally Specific Parent Trainings

The Chicago Parent Program (CPP; Gross et al., 2009) is a 12-session group parent-training program that was developed for and by African American and Latino parents. CPP utilizes teaching methods similar to IYP, such as videotapes and group discussions. The program reinforces parents' focus on positive attention to desired child behavior, while reducing harsh and inconsistent responses to problematic behaviors (Gross et al., 2009). During this training, parents were taught the importance of establishing family routine and tradition, of the value of praise, of following through on limit setting, and of effective time-out procedures. CPP's cultural aspect was developed in cooperation with African American and Latino parents, who advised the researchers of specific challenging situations they face as parents. The advisory council decided what situations would be depicted on the videotapes, and how to depict parenting strategies in a manner congruent with their values, lifestyle, and culture (Gross et al., 2009).

Gross and colleagues (2009) conducted a study to assess the effectiveness of CPP on 292 low-income African American and Latino participants. Participants were evenly assigned to a treatment group or a control group. Results indicated a reduction in parental reliance on corporal punishment, in the number of commands, and in observed child behavior problems that were also present in a one-year follow-up (Gross et al., 2009). Participants were divided into a low-dose therapy group (subjects receiving 5 or less

sessions) and a high-dose therapy group (subjects receiving 6 or more sessions). There were no significant differences in participants receiving a high or low dose, unless participants attended 3 sessions or fewer (Gross et al., 2009). Of the 12 scheduled parent-training sessions, parents attended an average of 4.2 sessions before dropping out treatment. Overall, CPP exhibited low attrition rates of 13% in the treatment group and 12.5% in the control group (Gross et al., 2009).

Black Parenting Strengths & Strategies (BPSS) (Choard et al., 2004) is an African American adaptation of the Parenting the Strong-Willed Child (PSWC) (Forehand & Long, 2002). BPSS teaches key behavioral parent management skills, and mobilizes unique cultural processes found to be protective by African American families, such as spirituality and high expectations for accomplishing goals. BPSS showed significant improvements in parenting skills compared to African Americans utilizing PSWC (Forehand & Long, 2002). African American parents reported a stronger connection with material discussed in BPSS over PSWC. Specific African American concerns and parenting styles were emphasized in BPSS. Despite having positive reactions to the specialized content, BPSS still demonstrated high rates of dropout ([.28 %]; Forehand & Long, 2002). One of the important specific features of African American child rearing discussed in this intervention is known as racial socialization (Coard et al., 2004).

Racial socialization is defined as “the developmental processes by which children acquire the behaviors, perceptions, values, and attitudes of an ethnic group, and come to see themselves and others as members of the group” (Rotheram & Phinney, 1987, pg. 11). Racial socialization practices are employed by African American parents to teach

children how to navigate their environments and promote adjustment in the face of race-related challenges (Choard et al., 2004).

African American Parenting

African American parents routinely engage in racial socialization practices as a natural part of their parenting style (Caughy et al., 2002). Understanding the African American culture and how to effectively integrate their cultural values in parent training is essential for culturally specific treatment (Forehand et al., 2002). Various studies have examined the effects of racial socialization on children. It has been reported that the more parents engage in specific racial socialization practices, the more the child improves his/her socio-emotional functioning (Bowman & Howard, 1985), interactions with parents (Frabutt, Walker, & Mackinnon-Lewis, 2002), and behavioral competence (Caughy et al., 2002). Given the importance of racial socialization in the parenting styles of African Americans, treatment geared towards improving parenting approaches would most likely benefit from including racial socialization practices (Bowman et al., 1985). Understanding how African American parents typically approach parenting can improve cultural awareness and treatment implementation.

African American parenting beliefs were examined in a study by Bartz & Levine (1978), who gathered information from 132 African American parents about specific patterns that arose while parenting their children. The parental practices cited most often by the participants were strictness, responsibility, family decision-making, and emotional expression (Bartz et al., 1978). Rashid (1985) also identified specific characteristics that have been identified in African American parenting styles, such as respect for authority figures, a strong work ethic, the value of a variety of responsibilities, the expression of

emotions, and a strong religious orientation. Treatments that do not highlight these characteristics of African American family life are more likely to encounter a lack of connection to program material in addition to other treatment obstacles (Rashid, 1985).

Obstacles for African American Parents

African American parents are less likely to enroll in parent trainings (Reid, Webster-Stratton, & Hammond, 2001) and more likely to dropout in comparison to Caucasians (Kazdin & Whitley, 2003). Moreover, even when attendance rates of Caucasian and African American parents are the same, levels of treatment engagement and participation in the parent-training process are lower in African American participants than Caucasians (Orrell-Valente et al., 1999). African American may be exposed to high levels of risk factors for poor parent-training outcomes, such as socioeconomic disadvantage, single-parent households, source of referral, and area of residency (Dumas & Waller, 1983; Armbruster & Fallon, 1994). It is important to understand additional logistical barriers that may prevent African American participants from accessing parenting programs.

Assemany & McIntosh (2002) studied the possible obstacles to treatment participation for low-income African American mothers, which included unreliable transportation, difficulty with child-care coverage, and demanding work and home schedules. All of these factors were discussed in previous research associated with high dropout rates and poor program participation for this population (Assemany et al., 2002; Lyon & Budd, 2010; Bernal & Scharro´n-Del-Rı´o, 2001). Various studies have shown that the explanations for missing parent- training sessions included not having child-care, not having transportation, and having a conflicting appointment at the time of parent

training (Assemany et al., 2002; Gross et al., 2009). Minimizing practical barriers to attendance, such as child-care and transportation difficulties, is widely recommended to increase engagement (Ingoldsby, 2010; Spoth & Redmond, 2002).

Current parent trainings that are culturally specific (CPP; Gross et al., 2009; BPSS; Choard et al., 2004) continue to have difficulty with high dropout rates. Culturally specific parent trainings may want to account for other barriers, besides connection to material, to treatment completion, such as length of intervention and individually scheduled sessions. Researchers intending to develop an effective parent training for this population may want to consider all potential barriers to treatment.

Further development of parent trainings specifically for low-income African American single parents could benefit from considering barriers to effective treatment with current parent training. The culture of a low-income, single-mother African American community has specific needs when receiving treatment. Since there is no extant parent training that addresses this population's needs for an effective intervention, it would be prudent to create a parent training that incorporates all known information addressing barriers and increasing effectiveness of parent trainings. One of the first steps in creating a parent training is to understand the theoretical framework, which will help provide clarity for the approach to parent-training development.

Development of a New Parent Training

Theoretical Underpinning

Three theoretical frameworks were considered in the development of this parent training. Social learning theory and attachment theory are partial sources, and behavior theory provides primary support for treatment structure and the majority of the skills

taught. Understanding how these theories conceptualize parenting and parent-child interactions can increase awareness of why parent-training programs may succeed in decreasing defiance in children. It is also important to understand how defiance develops from negative family interactions or parenting strategies.

Patterson (1976) hypothesized that one of the pathways leading to childhood defiance begins when a child is reinforced for responding aversively to stop the undesired behaviors of parents and siblings. When a child is asked by a parent to complete a chore, a defiant child may first ignore the parent. As the intensity of the parental request increases in volume and tone, the child may outright refuse to complete the chore, and may yell at the parent to stop making the request. If these behaviors effectively stop the repetition of the undesired parental request, it is likely that the child will repeat them in the future (Patterson, 1976). The parent is more likely to ignore positive behaviors of the child, as his/her frustration level increases from the continuous rejection of task demands. Teaching the parents appropriate ways to address the defiance can help increase compliance (Patterson, 1976).

Social learning theory's basic principle related to parent-child interactions is that moment-to-moment exchanges between a parent and child are critical in influencing a child's behavior. If the child receives an immediate reward for his/her behavior, such as positive verbal praise or attention, the child is more likely to engage in that behavior again (Patterson, 1982). Alternatively, if the behavior is ignored or punished, the behavior is less likely to recur (Patterson, 1982). In social learning theory, the parents are models to their children of both positive and negative behaviors. Improving parental reactions to negative events and increasing parental stress tolerance can translate into a

child's improved ability to disengage from defiant behaviors (Patterson, 1982). The modeling of the behaviors itself teaches the child how to act appropriately in specific situations. Much like social learning theory, attachment theory also addresses the parent-child relationship.

Attachment theory conceptualizes current behaviors as a reflection of early-established parent-child attachment patterns (Bowlby, 1982). Attachment theory specifically focuses on how the parent's role is to protect the child from harm and provide emotional security for the child. From the child's perspective, interactions with his/her parent are contingent upon having a trustworthy, secure parent, who can be relied upon to meet the child's needs, especially in times of distress (Bowlby, 1988). Consistent positive interactions between the child and parent can foster a trustworthy relationship. A positive behavior by a child results from his/her needs being met and feeling secure with the parent. However, maladaptive behaviors, such as defiance, are directed towards the parent, if the child's needs are not met (Bowlby, 1988).

The basic principles that underlie empirically supported parenting-training programs are often based on behavior theory (Skinner, 1974). Behavior theory seeks to understand and explain behavior by examining the interactions between an individual and his/her environment (Skinner, 1974). Practitioners examining the parent-child relationship through a behavior theory approach would explore the influence of both parent and environmental on the child's behavior (Johnston & Pennypacker, 1993). Parent-training programs often draw upon two underlying principles of behavior theory.

The first component is learning antecedents to behaviors. Antecedents are events that precede the occurrence of a particular positive or negative behavior. The antecedents

often influence whether, how often, and when the behaviors occur (Baer et al., 1987). Awareness of antecedents is especially important to prevent negative behaviors from occurring. Parents can develop an understanding of how to prevent recurrence of negative behaviors by recognizing the triggers preceding defiant behavior in their children. In working with parents, two specific types of antecedents are particularly important: establishing operations and discriminative stimuli.

Establishing operations refers to instituting the value, prior to a behavior, of consequences that occur after a behavior. For example, being cold establishes the value of the warmth of a jacket (Baer et al., 1987). Establishing operations influence how much a child may want something, which impacts the likelihood of the behavior occurring. The stronger the operations are, the more likely the behavior will occur. The colder a person is, the more likely they will value the warmth of the jacket. In addition to learning the value of consequences through establishing operations, learning the best time to engage in behaviors can be just as important (Skinner, 1974).

Discriminative stimuli are events that trigger the child's awareness of the best time to engage in a certain behavior to obtain his/her desired outcome (Schlinger, 1992). For example, when mom is happy can signal the best time to ask for a later bedtime. Parents may benefit from learning how their own behavior can become discriminative stimuli for both good and bad behaviors by their children. Parents can then use their abilities to be discriminative stimuli to positively influence their children's behaviors (Skinner, 1974). Discriminative stimuli and establishing operations can help prevent negative behaviors from occurring. However, when negative behaviors do occur,

implementing consequences to deter the child from engaging in these behaviors are equally important.

The second component of behavior theory that specifically applies to parent training is identifying consequences for negative behaviors. Consequences are events that follow behaviors that can either increase or decrease the likelihood of that behavior recurring (Schlinger, 1992). Consequences that are a direct result of a behavior are identified as contingent consequences, which have been identified as influential in improving behaviors (Honig & Staddon, 1977). Three contingent consequences utilized in parent trainings include reinforcement, extinction, and punishment.

Reinforcement can be positive or negative, depending on the behaviors addressed. Positive reinforcement increases the likelihood that the behavior will recur by adding a positive consequence to a desired behavior (Schlinger, 1992). Negative reinforcement removes a stimulus, or prevents it from occurring, to change behavior. For example, a child may clean his/her room to stop the parent from nagging about cleaning his/her room. The removal of nagging is negatively reinforcing, because it is taking an aversive stimulus away from the child, which in itself is rewarding. Reinforcement is a concept emphasized in parent trainings through such skills as positive praise, behavioral charts, behavioral contracting, and negotiating (Schlinger, 1992). If reinforcement increases the recurrence of a behavior, *extinction* decreases the recurrence of a behavior until it ceases.

Extinction refers to the complete cessation of a behavior through removing the reinforcer of the behavior. Once a behavior is no longer reinforced, the child has no reason to engage in the behavior (Sanders & Glynn, 1981). However, before the behavior is extinguished, an *extinction burst* occurs. An extinction burst is a temporary increase in

the intensity and frequency of the behavior. The extinction burst is a child's way to search for the reinforcer that is absent. Parents often have difficulty extinguishing behaviors when an extinction burst occurs, because of the temporary escalation of the child's negative behaviors (Sanders & Glynn, 1981).

Punishment is another consequence used to reduce behaviors. Punishment can be either positive or negative. Positive punishment refers to adding a negative consequence to a behavior, such as a spanking or a chore (Strain & Joseph, 2004). The child receives a perceived negative consequence as a result of his/her negative behaviors. Negative punishment is when pleasurable experiences are taken away, such as being grounded or forbidden to watch television. The child is punished by not being able to engage in activities that he/she wants. Parent trainings can help parents use punishments effectively by alternating between positive and negative punishments (Strain & Joseph, 2004). If the effectiveness of the consequences relies on making the connection between the negative behavior and the consequence, there are other components that influence the strength of behavioral reinforcement.

Parent trainings can inform parents about how their reaction to their children's behavior can influence the future recurrence of those same behaviors. Three key aspects that influence the reinforcement's impact on behaviors are the immediacy, frequency, and choice of reinforcers. Reinforcement that is delivered immediately after a behavior is more effective in influencing behavior than when there is a delay in the delivery of the reinforcement (Strain & Joseph, 2004). The more frequently and consistently reinforcement is provided for a select behavior, the more likely the child will associate

the behavior with the reinforcement. Moreover, allowing the child to choose his/her reinforcers increases the strength of the reinforcement (Sanders & Glynn, 1981).

Parent Training Skills

Skills taught to parents, based on a variety of theories, can have a significant impact on reducing negative behaviors. However, treating defiance in children requires a specific set of skills that can be most effective with this population. Overall, parenting skills that can help reduce defiant behaviors should address one of three areas. The skill may be utilized to increase positive reinforcement of appropriate behaviors, establish consistent consequences of negative behaviors, and develop or strengthen positive parent-child interactions and communication. Establishing consistent consequences for behaviors, either positive or negative, can be a struggle for parents. Skills that emphasize consequences to behaviors include limit setting, time-out, punishment, and behavior charts. These skills can also be best explained through a behavioral model.

Limit Setting

Limit setting is the process of establishing limits for what is acceptable behavior and possible consequences for not following the set limits (Wright et al., 2010). Limit setting helps the parent establish operations by setting clear guidelines and consequences for behaviors. Parents who engage in limit setting can consistently establish themselves as discriminative stimuli to the child. The child will associate the parent's presence with a limit set. The more consistent a parent is with setting limits, the easier it is for a child to adapt to the limits that are set (Wright et al., 2010). Limit setting is effective by utilizing two types of consequences: the child is able to engage in the chosen behavior when following limits set but receives punishment if the limits are not followed.

Punishment

Punishment is a parenting technique that can greatly influence the presence of a behavior. Parents often report understanding how punishment works from previous experience (Wright et al., 2010). However, correct implementation of punishment techniques may differ from preexisting notions of how to implement punishment (Balliet, Mulder, & Van Lange, 2011). Punishment should be clearly defined and linked to the problematic behaviors. The more clarity the parent can provide for the child about why he/she is being punished, the more likely the punishment will decrease negative behaviors.

Time-out

Time-out is used when a child engages in a behavior that the parent does not want him/her to engage in. Time-out, which is a type of negative punishment, restricts the child from engaging in pleasurable experiences (Schlinger, 1992). However, extinction burst is often associated with taking a child away from pleasurable experiences, which can make timeout difficult to implement fully.

Timeout, unlike many other parenting skills, is a very structured approach to managing negative behaviors of the child. During timeout, the child is instructed to sit in a chair away from walls and other distracting items. The length of the timeout is typically 1 to 2 minutes per year of the child's age. The parent keeps track of the time and allows the child to leave the chair once the time has expired (Barkely, 1997). The parent should clearly state the reasons the child is put in timeout (Barkley, 1997). Research has shown that stating the reasons for the timeout to the child either before or after the procedure

will increase its effectiveness (Gardner, Forehand, & Roberts, 1976). Another technique based on a behavioral theory foundation is the use of a behavior chart.

Behavior Chart

Behavior charts utilize key principles of behavior theory, such as reinforcement, establishing operations, and discriminative stimuli. The behavior chart involves reinforcement, which may occur at two separate times. First, the child is immediately rewarded, receiving a positive mark or sticker for behaving appropriately on the behavior chart. Second, the child receives a larger delayed reward, as a result of an accumulation of stickers or marks on the chart indicating positive behavioral change at the end of the day or week (Ou, Feldman, Balkrishnan, 2010). Behavioral charts are useful for parents to keep track of positive behaviors and reward them accordingly. The more a behavior is reinforced for occurring, the more it will occur. Therefore, focusing the chart on the presence of positive behaviors and not the absence of negative behaviors can help increase the occurrence of positive behaviors (Ou et al., 2010). Behavior charts include positive rewards for behaving appropriately for a child. Behavior charts are the most effective when there is an already established positive parent-child relationship (Ou et al., 2010). Other skills that help establish a positive parent-child relationship are grounded in alternative theories to behavior theory.

Attachment theory, as discussed earlier, explains childhood negative behaviors as a result of a poor attachment formed between the parent and child (Bowlby, 1985). The child needs to have his/her needs met by the parent, which will help build a trusting relationship. Engaging the child in activities focusing on the child's need for pleasure and enjoyable interactions with the parent can strengthen the parent-child attachment. Two

parenting methods that emphasize positive interactions between a parent and a child are nondirective play and establishing a family routine.

Nondirective Play

In nondirective play, the parent engages the child in an enjoyable activity without providing direction, setting rules, or selecting the activity (Weisz, Doss, & Hawley, 2005). The main goal of nondirective play is to improve the parent-child relationship by encouraging positive and safe interactions between the parent and child. As a result, these interactions can significantly improve negative communication processes by emphasizing the importance of positive interactions and communication through the play (Weisz et al., 2005). Positive, fun interactions may occur between parent and child in a variety of settings and in both unstructured (non -directive play) and structured activities (establishing family routine) (Gross et al., 2009).

Establishing Family Routines

Establishing family routines also is supported from an attachment theory perspective. The parent meets the child's needs by establishing structure and providing consistent support for the child. Parent's consistency in meeting the child's needs can help relieve anxiety of the child (Bowlby, 1988). A family routine, which the child helps develop, can increase the child's self-efficacy and confidence that the parent will be there to support him/her (Gross et al., 2009). Establishing family routines allows for a specific time and place for communication to occur within the family. An effective family routine should persist through daily stressors and obstacles to validate the importance of having a routine in the family structure (Gross et al., 2009). For example, the child and parent should set a specific dinner time every day. This fixed time will instill consistency and

structure in the child's life and increase the child's trust of the parent. When a child appropriately follows guidelines and activities such as family routine, they should be verbally praised for their positive interactions with the parent.

Positive Praise

Positive praise is a parenting skill that finds its roots in both behavioral and social learning theories. Positive praise is useful to develop the parent-child relationship and immediately reinforce the child's behaviors (Schlinger, 1992). By receiving immediate reinforcement for appropriate behaviors, a child may be more inclined to behave appropriately to receive the reinforcement of praise. Positive praise teaches parents to pay attention to the beneficial behaviors their children are engaging in, while ensuring the child knows the parent is noticing the behaviors (Barkley, 1997). Emphasizing the child's positive strengths and behaviors can also help improve a child's self-esteem and confidence (Eyberg, 1995).

Negotiating

Negotiating is another skill that finds its support in both behavior and social learning theories. Negotiating allows the parent to work collaboratively with the child toward a common goal. When a child is given the opportunity to discuss possible rewards and consequences of his/her behaviors, there is an increased chance that the child will behave in a positive way (behavior theory; Schlinger, 1992). The parent, as explained in social learning theory, can also become a positive role model of how to work collaboratively with others to best meet everyone's needs (Patterson, 1982). The key aspect of negotiating is to allow the child some input into the development or completion of an activity that both the parent and the child agree upon (Schneider, 2002). Negotiating

should be used for select behaviors, not all behaviors. The parent may lose parental control in the home if he/she allows the child to negotiate too frequently (Schneider, 2002). Contracting is another parenting method that is supported by multiple theories and can be used in conjunction with negotiating.

Contracting

Contracting is based on social learning theory and behavior theory principles. Creating the contract, as with negotiating, models for the child appropriate ways to work jointly with another person to set common goals and expectations for his/her behaviors (Patterson, 1982). Contracting also clearly states the consequences the child will experience following a behavior. The reinforcement of the behavior will help increase or decrease the likelihood of this behavior recurring. (Schling,1992). Contracting increases the collaboration between the parent and the child by working together to establish the guidelines of the contract (McMahon, 2006). The child has both a consequence and a reward based on whether the contract is followed.

Parent Training Structure

Although the skills chosen to teach in the parent training are critical, the structure of how and when the skills are taught is equally important. The first step in effective parent training programs is working with the parent to define the problem behavior operationally. Operational definitions are important to ensure that the therapist and parent are working towards the same goals (Shriver & Allen, 1997). Specifically, an operational definition entails gathering information about whether the behavior is observable and measurable. Parents can better assess progress in decreasing negative

behaviors when they are accurately reporting the occurrence of behaviors. Once the type and frequency of behavior is established, monitoring the behavior is then emphasized.

The following proposed parent training follows the steps commonly associated with effective parent-training programs, such as operationally defining behaviors and setting up effective ways to monitor behaviors. The parent is instructed to monitor behaviors, via behavior charts, to assess the presence of the identified behaviors. Once the parent is instructed how to monitor the behaviors, the parent and therapist discuss potential barriers to monitoring behaviors on a consistent basis (Krebs, 1986). The therapist addresses logistical barriers to attending treatment and ways to increase compliance with program requirements. Once all barriers are addressed, the parents begin to learn new skills in managing negative behaviors of their children (Krebs, 1986). The majority of the parent training is focused on teaching the parent new skills and ways to handle negative behaviors of his/her child. The skills are also presented in the parent training in a specific order to maximize effectiveness. Initial skills taught in the parent training focus on developing and maintaining a positive relationship between the parent and child. Techniques such as nondirective play, behavior charts, positive praise, and establishing family routine help provide a supportive foundation for positive behavioral change. As explained in social learning theory, the parent models for the child appropriate ways to handle negative situations in a positive manner (Patterson, 1982). Attachment theory suggests that allowing the child to feel safe and comfortable around the parent improves negative behaviors as well (Bowlby, 1988). Once the positive relationship has been established through the first part of the training, the second part focuses on the skills of setting limits, punishment, and time-out. The child is more likely

to respond appropriately to negative consequences if there is a strong foundation for positive family interactions established early in treatment (Patterson, 1982). In the later sessions, the parent and child continue to build upon a positive parent-child relationship by working together to establish guidelines for specific behaviors through negotiating and contracting. The organization of the proposed parent training may improve parent-child relationship early on, which then increases rule following and working together to establish appropriate rules and regulations. Structure is not only important for when the skills will be taught but also for how the skills will be taught.

The teaching of each skill follows a behavioral skills training model. The behavioral skills training model has been proven to be effective in teaching new skills and behaviors to individuals (Meichenbaum & Turk, 1987). The parent is first informed about the skill being taught. The parent is told why the skill was chosen, and how it can help with reducing defiance. The next step is modeling or role playing. Role playing, modeling, and rehearsal of the skills has been proven to increase significantly the likelihood of retaining information learned in treatment (Wright et al., 2010). Teaching parenting skills goes far beyond time spent in session. Table 1 (below) illustrates the sequence in which each parenting skill is presented over the course of the five-session traning.

Assignments between sessions help keep parents actively engaged in the parent training consistently. All of the techniques learned throughout will be practiced both in and out of sessions. Homework has been positively associated with increasing treatment involvement and increasing appropriate implementation of skills in the home environment (Hobbs, Walle, & Hammersly, 1990). Reviewing homework assignments

prior to ending sessions and addressing potential obstacles to completing homework increases the likelihood of the parent completing the homework (Hobbs et al., 1990).

In developing this treatment, all aspects of the parent-training program were considered. Session content, methods of administration, session length, structure of each individual session and of treatment as a whole, and accommodations to improve treatment completion have all been specifically tailored to increase treatment effectiveness for low-income African American single mothers.

Table 1. *Session Breakdown*

Session Skills	***Session 1***	***Session 2***	***Session 3***	***Session 4***	***Session 5***
Nondirective Play	*I*	*M*	*M*	*M*	*M*
Behavior Chart	*I*	*M*	*M*	*M*	*M*
Positive Praise		*I*	*M*	*M*	*M*
Establishing Family Routine		*I*	*M*	*M*	*M*
Limit Setting			*I*	*M*	*M*
Time Out			*I*	*M*	*M*
Negotiating				*I*	*M*
Punishment				*I*	*M*
Contracting					*I*
Racial Pride	*X*				
Racial Achievement		*X*			
Racial Equality			*X*		
Racism Preparation				*X*	

I = Introduced, skills are initially discussed.

M = Maintained, skills are continually revisited based on parental needs.

X = Concepts, initially discussed with parent for subsequent discussion with child.

Summary

Childhood defiance manifests in a variety of behaviors, such as poor response to adult prompting, inappropriate objection to task demands, and poor compliance with rules and regulations (Garbarino, 1995). Defiant behaviors in children increase the amount of stress and anxiety experienced by parents (Patterson et al., 1992). High amounts of preexisting stress can cause diminished ability to manage additional stress.

Low-income African American single parents can have high levels of stress as a result of daily financial, safety, and shelter concerns (Bjørknes, Jakobsen, & Nærde, 2011). High stress levels significantly influence parents' tolerance, frustration and agitation (Compas & Williams, 1990). High levels of parental stress can impact the development of defiance and/or worsen present defiant behaviors in children (Compas et al., 1990). Low-income African American single parents have limited options for learning effective ways to manage defiance (Gorman & Balter, 1997). Although there are effective treatments for defiance (Barkley's defiant child program, PMT, PCIT, IYP; Barkley, 1997; Nock & Kazdin, 2005; Johnson & Waller, 2006; Webster-Stratton & Hammond, 1997), these treatments exhibited high dropout rates and low effectiveness for low-income African American single parents (Weisz et al., 2005). Low-income single-parent African Americans have shown positive responses to parent trainings of shorter length than traditional parent programs (7.2 sessions; Axelrod et al., 2009; 4.2 sessions; Gross et al., 2009). However, these shorter treatments do not include session content that addresses specific African American concepts, such as racial socialization. Racial socialization is employed by African American parents to teach children how to navigate

their environments and to promote adjustment in the face of race-related challenges (Choard et al., 2004).

There is a need for a brief parent-training program that addresses the obstacles that low-income African American single parents face in accessing treatment and identifying with session content, as they try to decrease defiance in their children. Obstacles faced by this population include child-care coverage during sessions, inconsistent transportation, realistic implementation of parent-training content in everyday life, and relating to session content (Lyon & Budd, 2010). Improving the parent-child relationship, increasing parental awareness of and influence over behaviors, and developing appropriate structure for the child may decrease defiance. As a result, negative maladaptive behavioral patterns, such as noncompliance, aggression, and hyperactivity may also decrease. Reduction in negative behavioral patterns of children may ultimately reduce daily parental stress levels.

Chapter 3: Hypotheses

1) Defiance levels in children and stress levels of parents waiting to receive the intervention will remain constant over the course of baseline.

2a) Defiance levels in children of parents who complete the intervention will decrease, as measured by the Oppositional Defiant Behavior Inventory (OBDI).

2b) Lowered levels of defiance will be maintained over a five-week follow-up period.

3a) Stress levels of parents who complete the intervention will decrease as measured by the Parental Stress Scale (PSS).

3b) Lowered levels of parental stress will be maintained over a five-week follow-up period.

4) General maladaptive behaviors in children of parents who complete the intervention will decrease, as measured by the BASC-2.

Chapter Four: Methods

Overview

This study examined the effectiveness of a brief parent-training intervention created to address possible barriers experienced by low-income African American single mothers in completing traditional parent-training programs. Parents were provided child-care options and individually scheduled sessions to alleviate common program-completion difficulties. The intervention was also intended to educate and coach single parents in utilizing positive parenting techniques with the ultimate goal of reducing parental stress levels as well as child defiance. In addition, parents were instructed how to utilize cultural discussions to enhance their relationship and communication skills with their children.

Design/Design Justification

A prospective single-subject multiple-baseline experimental design was used to assess the effects of the brief parent-training intervention. This design provided the most experimental control and employed time-series analysis to reduce the chance of making a type I or type II error. The design also allowed for process data to be collected to determine when possible changes occurred during administration of the protocol.

Participants

Four participants were recruited from a community mental health center in an urban area in the northeast. This facility has a large number of minority clients of low socioeconomic status. The number of participants selected for the study was based on the number of participants in comparable single-subject multiple baseline studies (Singh et al., 2010; Spaid, 2004; Jarrett & Ollendick, 2010; Wells, 2009). Participants were African

American single mothers who met screening criteria. Participants ranged in age from 28 to 31 years old. Participants' children were all male and ranged in age from 5 to 8 years old.

Inclusion Criteria

Parents were eligible to participate in this study if they were African American, single mothers, 18 to 35 years old, and fluent in English based on self-report. Furthermore, they must have had a child, age 5-11, who demonstrated clinically significant symptoms of Oppositional Defiant Disorder (ODD). A clinically significant level of ODD was defined as a parental rating of at least four items as either "pretty much" or "very much" on the Oppositional Defiant Disorder Rating Scale (ODDRS).

Exclusion Criteria

Potential parent participants were excluded from the study, if they had a history of or a current mental health issues or substance abuse. Moreover, single-parent fathers were ineligible to participate. Participants' children who did not meet screening criteria for defiant behaviors on the ODDRS were also excluded.

Recruitment

Recruitment was based on a convenience sample from a community mental health center in an urban area in the northeast. Participants were informed of the study during the initial clinical intake at the center. The intake specialist at the center informed any female parent who was referring her child for treatment about the brief parent-training intervention. If the parent was interested in participating in the study, the researcher contacted her and scheduled a meeting to review the details of the study with her. If the

parent was interested in participating in the study, she signed an informed consent at this meeting time with the researcher.

Measures

Demographic Sheet

Demographic information was gathered from the initial agency-intake interview of the parent and copied onto a data sheet.

Treatment Satisfaction Questionnaire

The researcher developed a questionnaire to assess the participants' satisfaction with the brief parent training. The questionnaire assessed if the participants utilized the child-care support, and if the flexibility of scheduling individual sessions influenced their ability to attend treatment. The participants were also asked if they found the discussion of race to be helpful, what their experience was with completing homework between sessions, and their overall satisfaction with the intervention.

Parental Stress Scale

([PSS]; Berry & Jones, 1995).The PSS is an 18-item self-report measure of stress levels completed by parents. It is used to determine the amount of stress a parent is experiencing related to parenting responsibilities. For each item, parents are asked to rate their level of agreement on a five point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* (Berry & Jones, 1995). The PSS has demonstrated adequate reliability and validity in identifying stress levels directly associated with parenting, as tested on a sample of 233 parents (Berry & Jones, 1995). The measure demonstrated strong internal consistency (alpha = .83) and strong test-retest reliability (r = .81). Concurrent validity was demonstrated with the Perceived Stress Scale (r = .50) and the Parent Stress

Inventory (*r* = .72) (Berry & Jones, 1995). All subscales of the PSS, other than the parent health and parent relationship to spouse subscales were correlated with the subscales of the PSI (*r* = .33 to *r* = .72) (Berry & Jones, 1995).

Behavior Assessment System for Children-2

(BASC-2). The BASC-2 is a multimethod, multidimensional measure of both adaptive and maladaptive behaviors of children (McClendon et al., 2011). The BASC-2 is used to gain clinical clarification of diagnoses and to establish appropriate educational placement for children exhibiting negative behaviors in school. T scores at or above 70 indicate clinical elevations of behavioral patterns, and 60 and above indicate problematic elevations in behavioral patterns. The BASC-2 categorizes problematic behaviors as either externalizing or internalizing. Externalizing behaviors include hyperactivity, aggression, and conduct problems, and internalizing behaviors include anxiety, depression, and somatization.

The BASC-2 contains 5 components: 1) Teacher Rating Scale (TRS), 2) Parent Rating Scale (PRS), 3) Self-Report of Personality (SRP), 4) Structured Developmental History (SDP), and 5) Student Observation System (SOS). The PRS was be the only component of the BASC-2 used in this study (McClendon et al., 2011). The BASC-2 has demonstrated high reliability and validity across all components. In a sample of 2770 participants, the PRS demonstrated strong internal consistency (alpha = .917) and retest reliability (*r* = .84) (Dowdy et al., 2011). The PRS demonstrated fair interrater reliability on the child measure (r = .69) and high reliability on the adolescent measure (*r* = .77) (Dowdy et al., 2011). Concurrent validity of the PRS has been demonstrated with the Conners' Parent Rating Scale Revised (*r* =.81), the Achenbach System of Empirically

Based Assessment (ASEBA) (r = .76), and Behavior Rating Inventory of Executive Functioning (BRIEF) Parent Form ([r = .73]; Dowdy et al., 2011).

Oppositional Defiant Behavior Inventory

([ODBI]; Harada et al., 2008). The OBDI is an 18-item self-report measure of defiant behaviors in children completed by parents. It is used to assist in making a potential Oppositional Defiant Disorder (ODD) diagnosis, if by features of Attention Deficit Hyperactivity Disorder (ADHD) or other mental health disorders mask the the symptoms of ODD. ODBI can provide specific information about the presence of defiance to assist with differential diagnosis. Each item of the inventory is measured on a 5-point scale ranging from 0 = *rarely* to 4 = *always* (Harada et al., 2008). The ODBI has demonstrated adequate reliability and validity in identifying the presence of defiant behaviors. The reliability and validity of this measure was tested on a sample of 98 adults reporting on their child's behavior in a community-based setting (Harada et al., 2008). The measure demonstrated strong internal consistency (α = .925) and retest reliability (r = .82). Concurrent validity was demonstrated with the Disruptive Behavior Disorders Ratings Scale – ODD items (DBD-RS) [r = 0.660]) and with DSM-IV ODD criteria [(r = 0.725; Harada et al., 2008). Divergent validity was measured with an ADHD group (20.5), an ODD group (33.3), and a control group (10.7). Between-groups analysis demonstrated significance ([F = 145.6]; Harada et al., 2008).

Oppositional Defiant Disorder Rating Scale

(ODDRS) (Hommerson et al, 2006). The ODDRS is an eight-item self-report measure of the presence of ODD features. It is used to match the child's symptoms with DSM-IV-TR criteria for an ODD diagnosis, using a four-point scale (0 = *not at al*l, 1 =

j*ust a little*, 2 = *pretty much*, 3 = *very much*). The questions are taken verbatim from the DSM-IV-TR criteria for an ODD diagnosis. The measure demonstrated strong internal consistency (α = .92) and moderate retest reliability ([r = .54]; Hommerson et al., 2006). The ODDRS was correlated with the subscales of the CBCL pertaining to defiant symptoms, such as aggressive behavior, attention problems, delinquent behavior, and internalizing subscales. The strongest correlation was with the aggressive behavior subscale (p = .73) and the weakest was with the internalizing subscale (p = .46) (Hommerson et al., 2006). Convergent validity was demonstrated with the aggression subscale on the Behavioral Assessment System for Children: Second Edition ([r = .82]; Reynolds & Kamphaus, 2004; O'laughlin, Hackenberg, & Riccardi, 2010).

Procedure

The clinical-intake specialist at the community mental health center informed parents who were bringing their children in for treatment of oppositional behaviors of the new brief parenting-training intervention that they could participate in, as their children's underwent their own treatment. The intake specialist provided the researcher with the contact information of parents who were interested in the study. The researcher contacted the parents to set up a time to meet and discuss the study. The parents were informed about what the study would entail and given the informed consent to review. Moreover, parents were informed of the need to periodically complete assessments to track the progress of the behaviors being measured. All of the parents agreed to review and sign the informed consent during initial meeting, without needing added time to review the consent form afterward. At this time, they were also told about the child-care options that were available during the brief parent training. The parents were then given the ODDRS,

which was scored immediately, to assess whether the child's defiant behaviors were at a diagnosable level, qualifying them for the intervention. Those who met criteria were told immediately that they qualified for parent training. Parents whose children did not meet ODDRS criteria were told they were not eligible to participate in the study; however, they were given information about other parent-training programs and thanked for their time.

Parents who participated in the study provided five weeks of baseline information about the child's defiance prior to beginning the intervention. After providing the baseline information, the five-session parent training began, and participants completed assessments each week. Once treatment concluded, parents completed assessment measures every week for five more weeks.

Measures were completed in person or by telephone, depending on which was most convenient for the parents. When parents were at the facility for either the initial meeting or training sessions, measures were conducted in person. During all other weeks of data collection, measures were completed by phone. Measures were completed either by the researcher or the research assistants. The research assistants for this study were master's-level psychology students.

Behaviors of the children were assessed using the PRS form of the BASC-2 and the OBDI. The PRS form of the BASC-2 was administered in the first week of treatment and at first week of post treatment. The OBDI was administered every week, from the first week of baseline through the fifth week of follow-up. Parental stress was assessed using the PSS. The PSS was administered in the first week of baseline, in the first and fifth weeks of treatment, and in the fifth week of follow-up. Assessments performed

during treatment were collected at the start of each session. Table 1 is included to illustrate when and how measures were administered over the course of the study.

Sessions were conducted individually for ninety minutes. Each session included a specific agenda, new skills to be learned, and new cultural topics for the parent to discuss with the child between sessions. All session skills were taught and rehearsed through role-playing and modeling techniques. The first session focused on building rapport and discussing parents' expectations of the intervention. Also, skills were discussed during the first session, including nondirective play and using a behavioral chart. The parents were also instructed about communicating the importance of racial pride to their children. The focus of the second session was on positive praise and establishing family routine. The parents were encouraged to talk to their children about racial achievement. The third session focused on limit setting and time-out as well as racial equality. The fourth session focused on punishment and negotiating techniques. In addition, the therapist encouraged the parents to discuss the concept of racism preparation with their children. During the fifth session, the therapist discussed the use of *contracting*. The therapist also reviewed all skills learned earlier and explored how the parents have been utilizing the techniques discussed. The therapist reviewed the past behavior charts and encouraged the parents to continue to implement behavior charting after treatment ends. The manual for this parent training in its entirety is available in the appendix of this manuscript.

Table 2. *When And Where Measures Will Be Completed.*

	Baseline Phase				
Week	1	2	3	4	5
Measure Method	ODBI PSS Per.	ODBI Tel.	ODBI Tel.	ODBI Tel.	ODBI PSS BASC Per.
Time	5 min.	5 min.	5 min.	5 min.	15 min.
	Treatment Phase				
Week	6	7	8	9	10
Measure Method	ODBI Per.	ODBI Per.	ODBI Per.	ODBI Per.	ODBI PSS BASC Tel.
Time	5 min.	5 min.	5 min.	5 min.	15 min.
	Follow-Up Phase				
Week	11	12	13	14	15
Measure Method	ODBI Tel.	ODBI Tel.	ODBI Tel.	ODBI Tel.	ODBI PSS TSQ Tel.
Time	5 min.	5 min.	5 min.	5 min.	15 min.
Note: Per. = In person, Tel. = Telephone					

ODBI = Oppositional Defiant Behavior Inventory

PSS = Parental Stress Scale

BASC = Behavior Assessment Scale for Children

TSQ = Treatment Satisfaction Questionnaire

Total time spent completing measures = 1 hour 35 minutes (55 minutes over the phone, 40 minutes in person).

Chapter 5: Results

Data Analysis

Simulation Modeling Analysis and Descriptive Statistics.

Simulation Modeling Analysis (SMA) was used to determine whether defiant behaviors in children, as assessed by the OBDI, decreased after parents participated in a brief parent-training program. SMA measures the probability of observing the effect found in this study by chance, based on thousands of randomly drawn samples with the same *n* (number of scores) and the same phase of autocorrelations (Borckardt el al., 2008). SMA was also used to determine whether changes in the reduction of defiant behaviors in children, as assessed by the OBDI, were maintained over a five-week follow-up period. SMA is able to compare only two phases of treatment per analysis. Therefore, two separate analyses were conducted. The first analysis compared baseline data to treatment data. The second compared treatment data to follow-up data.

A Pearson's *r* correlation was utilized to identify the relationship between defiance scores and the randomly drawn samples. The likelihood of obtaining the Pearson's *r* by chance refers to the *p value*. Researchers viewed a *p* value of .05 or less as a significant value. A second correlation was conducted between defiance scores with the phase-level change vectors and slope vectors.

There are five possible slope vectors that a significantly correlated stream of data can mimic (Borckardt el al., 2008). Slope one indicates that scores increase linearly during baseline and decrease linearly during treatment. Slope two indicates that scores are flat during baseline and increase during treatment. Slope three indicates that scores increase linearly during baseline and remain flat during treatment. Slope four indicates

that scores increase linearly throughout baseline and treatment. Slope five indicates that scores increase and drop during baseline, and increase again during treatment (Borckardt el al., 2008). Phase level vectors are either zero, representing the baseline stage, or 1, representing the treatment phase. An effective parent-training intervention would have the highest correlation with slope one, indicating a reduction in defiance following treatment implementation.

Scores from the PSS and the BASC cannot be analyzed using SMA due to the limited number of data points. Therefore, a visual analysis was conducted to assess trends in performance by comparing pretreatment data to posttreatment data scores of the PSS and the BASC. The means of the scores from the PSS were compared throughout the study to test for change. The mean scores of the BASC were compared at two points, pre and posttreatment. Visual analysis was used to assess whether parental stress, as measured by the PSS, decreased after parents participated in a brief parent-training program, and if changes were maintained over a five-week follow-up period. Visual analysis was also used to further assess whether general maladaptive behaviors in the children, as measured by the BASC, decreased and remained so over a five-week follow-up period. A graph is used to illustrate visually each participant's individual progress throughout the study.

Sample Characteristics

The family composition of the participants varied; three of the four participants parented one child, and one participant parented three children. There were 15 parents who expressed interest in the program and who met initial screening criteria. Of the 15 parents interested, seven were unable to be contacted by the researcher because of

disconnected phone lines or not returning various voice-mail messages left by researcher, two did not meet further screening criteria, and two met criteria and provided baseline data but dropped out of study prior to the beginning of the parent training. Of the two dropouts, one parent reported the child's father was granted custody of the child, and her access to her child was limited to one day a week, making her ineligible for the study. The second parent reported extremely limited time to attend parent trainings due to a busy schedule and prior engagements over the several months earmarked for the training; therefore, the parent requested to be dropped from the study. Four parents completed the parent training and remained in the study for the entirety of data collection. No participants dropped out of the study once they began the training.

Although every effort was made to gather data once per week, frequency of measure completion varied based on availability of participants. A five-session weekly training took an average of 7.6 weeks (11.1, 6.3, 7.6, and 4.6) to complete. Completion of the entire study was anticipated in 15 weeks, from the first baseline collection to final follow-up collection; participants completed the entire study in an average of 19.3 weeks (24.7, 18.9, 18, and 15.7). Subject 1 took the longest to complete both the parent training and the entire study, hence inflating the average time frame for completion.

Effects of Parent Training on Defiance

Simulation Modeling Analysis (SMA) was utilized to determine whether the introduction of a brief parent training precipitated a significant change in levels of children's defiance (between-phase changes), and whether changes in defiance occurred during Baseline and Treatment phases (within-phase changes). In terms of between-phase changes, SMA produced Pearson correlations between the dependent variable (defiance

scores) and a slope vector of each phase. A positive correlation with this vector signified a score increase between phases, but a negative correlation represented a decrease. For the purpose of this study, a negative correlation was expected between all phases. Two sets of correlations were run, one for Baseline to Treatment level changes and the other for Treatment to Follow-up level changes. Associated significance tests described the probability of obtaining these correlations by chance, based on 10,000 simulated samples that possessed the same *n* and autocorrelations as the individual subject's data stream.

In addition to data on level change between phases, SMA yielded information about changes in defiance scores during each phase, or slope patterns. The analysis correlated defiance scores with five different linear slope vectors: Vector 1, increasing in Phase 1 and decreasing in Phase 2; Vector 2, flat during Phase 1 and increasing in Phase 2; Vector 3, increasing in Phase 1 and leveling out in Phase 2; Vector 4, increasing in both Phases 1 and 2, and Vector 5, increasing then immediately dropping in Phase 1, followed by increase in Phase 2. Two slope vectors were calculated for each participant, one for the Baseline and Treatment phases, and one for Treatment and Follow-up phases. Table 2 displays the *best fit* slope vectors for each participant in each phase comparison. Best fit was defined as the vector with the greatest strength of correlation with the lowest *p*-value.

As shown in Table 2, statistically significant decreases in defiance levels between Baseline and Treatment phases were noted for Participant 2 (Baseline, M= 34.6; Treatment, M = 11.4; rL= -.70, $p < .05$). Statistically significant decreases in defiance levels between Treatment and Follow-up phases were noted for Participant 1 (Treatment, M = 21.4; Follow-up, M = 10.4; rL = -.078, $p < .01$). There were no other statistically

significant decreases in defiance levels between levels for any participant. Also displayed in Table 2, defiance average scores ranged from 20 to 47.2 during Baseline, 10 to 44 during Treatment, and 3.8 to 44.4 during Follow-up.

Table 3. *Defiance Level and Slope for Simulation Modeling Analysis from Baseline to Treatment, and Treatment to Follow-up by Participant.*

	Baseline	Treatment	Follow-up	Baseline to Treatment			Treatment to Follow-up		
Participant	*M*	*M*	*M*	r_L	r_S	v_S	r_L	r_S	v_S
1	23	21.4	10.4	-.08	-.24	1	-.78	-.65	2
2	34.6	11.4	4.8	-.70	-.84	2	-.29	-.63	3
3	47.2	44.0	44.4	-.58	-.38	3	.06	.81	1
4	20	10	3.8	-.47	-.65	4	-.51	-.87	3

Note. $r_{L\,=}$ Pearson correlation for level change; r_S = Pearson correlation for slop vector; v_S = slope vector with strongest correlational. Slope vector refers to phase 1/phase 2 patterns, comparing Baseline to Treatment or Treatment to Follow-up: 1 = increase/decrease; 2 = flat/increase; 3 = increase/level out; 4 = increase/increase; 5= increase-drop/increase.

Participant 1

Baseline to Treatment.

Scores increased during Baseline and decreased during Treatment (*rS* = -.24, *p* < .05), although the correlation with Vector 1 demonstrating a decrease in Baseline and increase in Treatment is relatively small.

Treatment to Follow-up.

Scores were moderately correlated, with Vector 2 demonstrating flat distribution during Treatment and decreasing during Follow-up (*rS* = -.65, *p* < .05).

Participant 2

Baseline to Treatment.

Defiance scores showed a statistically high correlation with Vector 2, indicating a flat distribution during Baseline and a decrease during Treatment (rS = -.84, p < .05).

Treatment to Follow-up.

A moderate correlation was evident in defiance scores, and Vector 3 demonstrated a decrease during Treatment and leveling out during Follow-up (rS = -.63, p < .05).

Participant 3

Baseline to Treatment.

A small correlation was evident in defiance scores with Vector 4, indicating a decrease during both Baseline and Treatment phases (rS = -.38, p < .05

Treatment to Follow-up.

Defiance scores were strongly correlated with Vector 1, indicating an increase during Treatment and a decrease during Follow-up (rS = .81, p < .05).

Participant 4

Baseline to Treatment.

Vector 4 was moderately correlated with defiance scores, indicating a decrease during both Baseline and Treatment (r_S = -.65, p < .05).

Treatment to Follow-up

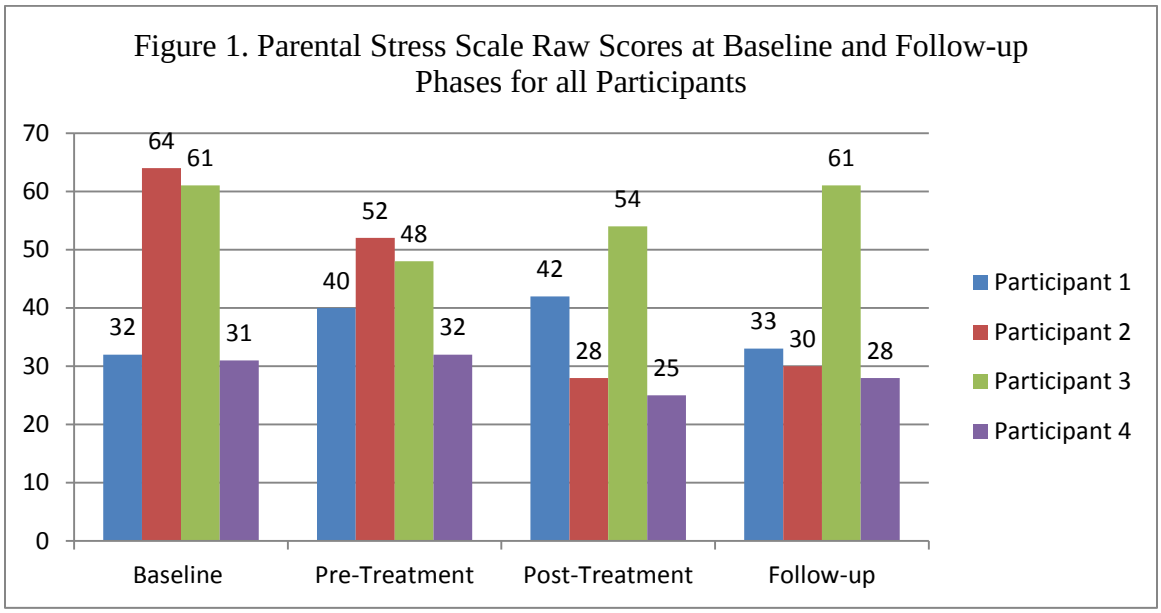
A strong correlation occurred between defiance scores and Vector 3, indicating a decrease during Treatment and a leveling out in Follow-up (r_S = -.87, p < .05).

Effects of Parent Training on Parental Stress

Parental stress levels were assessed with the Parental Stress Scale (PSS). Due to the limited data points, scores on the PSS were not statistically evaluated; however, the raw scores of the PSS are provided in Figure 1. Participant 1's raw scores (32, 40, 42, 33)

were highest near the start and end of training. Participant 2's scores (64, 52, 28, 30) gradually decreased over the course of the study. Participant 3's scores (61, 48, 54, 61) varied minimally over the course of the study, only to return to the same score the participant began the study with. No changes in parental stress were noted for this participant. Despite consistently low levels of stress, Participant 4's scores (31, 32, 25, 28) decreased over the course of the study.

Figure 1. Stress levels for each participant. Baseline was collected at start of baseline data collection. Pre-Treatment was collected at the end of Baseline and the start of Training. Post-Treatment was collected at the end of Training and start of the Follow-up phase. Follow-up was collected at the end of the Follow-up phase.



Effects of Parent Training on Overall Maladaptive Functioning

Due to the limited data points, scores on the BASC-2 were not statistically evaluated; however, the raw scores of the BASC-2 are provided in Table 3. Therefore, only overall externalizing and internalizing behaviors were reported. Regarding

externalizing behaviors, Participant 2 showed reduction from clinical levels to normal levels of behaviors (*t* = 81/38). Participant 4 also showed reduction from problematic levels to normal levels of behaviors (*t* = 66/45). Internalizing behaviors were reduced in Participant 4 from problematic to normal levels (*t* = 63/45). No other changes worth noting occurred in externalizing or internalizing behaviors.

Table 4: *Participants' Pretreatment and Posttreatment BASC-2 T Scores*

	Externalizing Behaviors		Internalizing Behaviors	
Participants	Pre-Treatment	Post-Treatment	Pre-Treatment	Post-Treatment
1	72	74	47	52
2	81	38	46	33
3	92	89	64	64
4	66	45	63	45

Note. BASC-2 was gathered at the last Baseline collection (pretreatment) and the first Posttreatment collection. Externalizing behaviors include hyperactivity, aggression, and conduct problems. Internalizing behaviors include anxiety, depression, and somatization. *T* scores in the 60 – 69 range are considered at-risk and should be addressed in treatment. *T* scores of 70 or above are considered clinically significant.

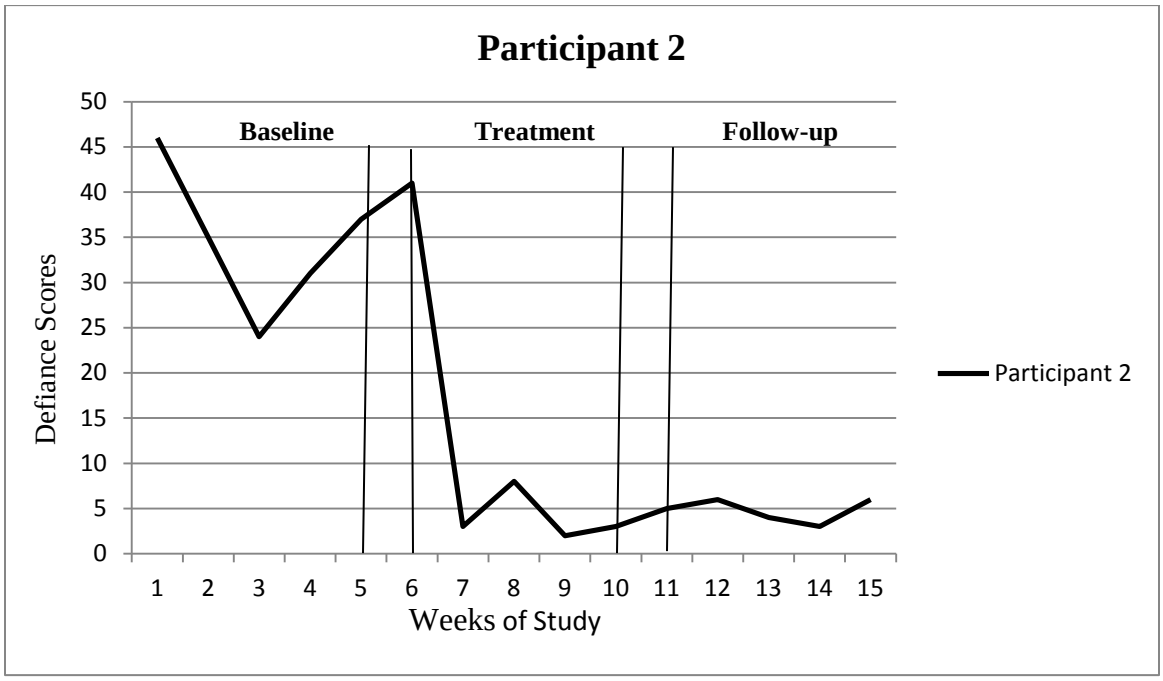
Summary

At the conclusion of the study, four African American single mothers whose children showed diagnosable levels of defiance participated in the study. Two parents dropped out of the study during Baseline. As shown in Tables 2 and 3, Participants 2 and 4 reported the most significant reductions in defiance in their children and in both externalizing and internalizing behavioral patterns. Participant 2 and 4 also showed gradual reductions in parental stress, as illustrated in Figure 1.

Participant 2

Participant 2's defiance scores had a significantly high correlation of -.70 between Baseline and Treatment level as well as with slope vector 2 (-.84). Although the slope vector suggests a flat/increase data distribution, the negative correlation suggests the slope is flat in the first phase but decreases in the second phase. Defiance scores during Treatment and Follow-up correlated moderately with slope vector 3 (-.63). Defiance scores decreased over the course of the study (34.6, 11.4, and 4.8). A detailed illustration of all defiance scores throughout the study is available in Figure 2. Results also showed reductions in externalizing behaviors from Pretreatment to Posttreatment (81 to 38). Stress levels decreased from Baseline (64, 52) to Follow-up phases (28, 30). Parent training was completed in 6.3 weeks, and the entire study was completed in 18.9 weeks.

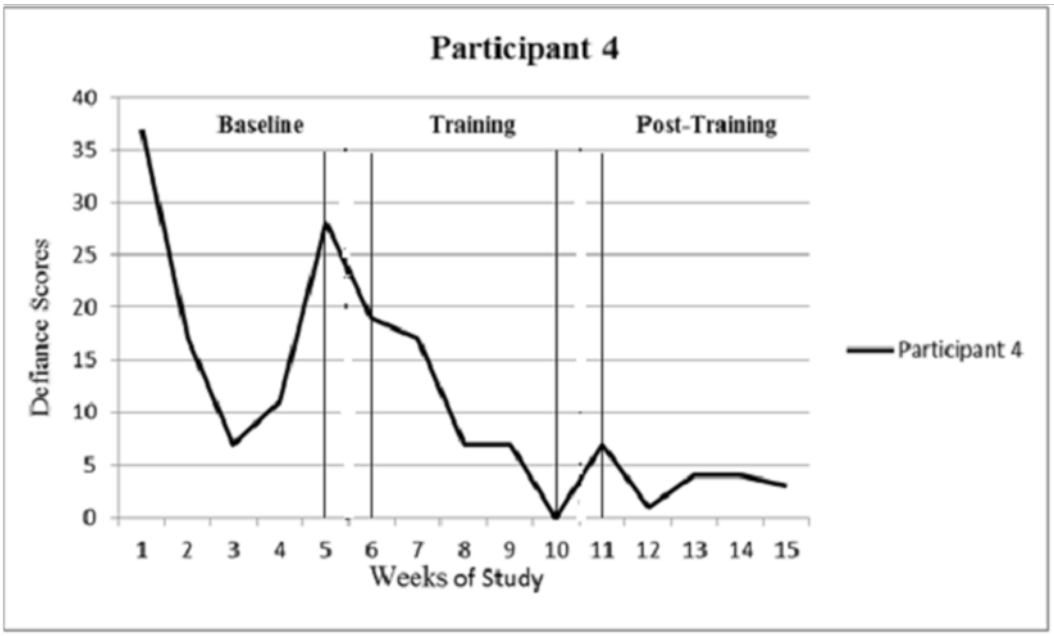
Figure 2. Defiance raw scores for Participant 2.



Participant 4

Baseline and Training phases were moderately correlated (-.65) with slope vector 4 (decrease/decrease). Significantly high correlations (-.87) occurred between the Training and Follow-up phases and slope vector 3 (decrease/level out). Defiance scores decreased over the course of the study (20, 10, and 3.8). A detailed illustration of all defiance scores throughout the study is available in Figure 3. Parental stress minimally decreased from Baseline (31, 32) to Follow-up phases (25, 28). Both externalizing and internalizing behaviors reduced from Pretreatment to Posttreatment (66 to 45, 63 to 45). Parent training was completed in 4.6 weeks, and the entire study was completed in 15.7 weeks.

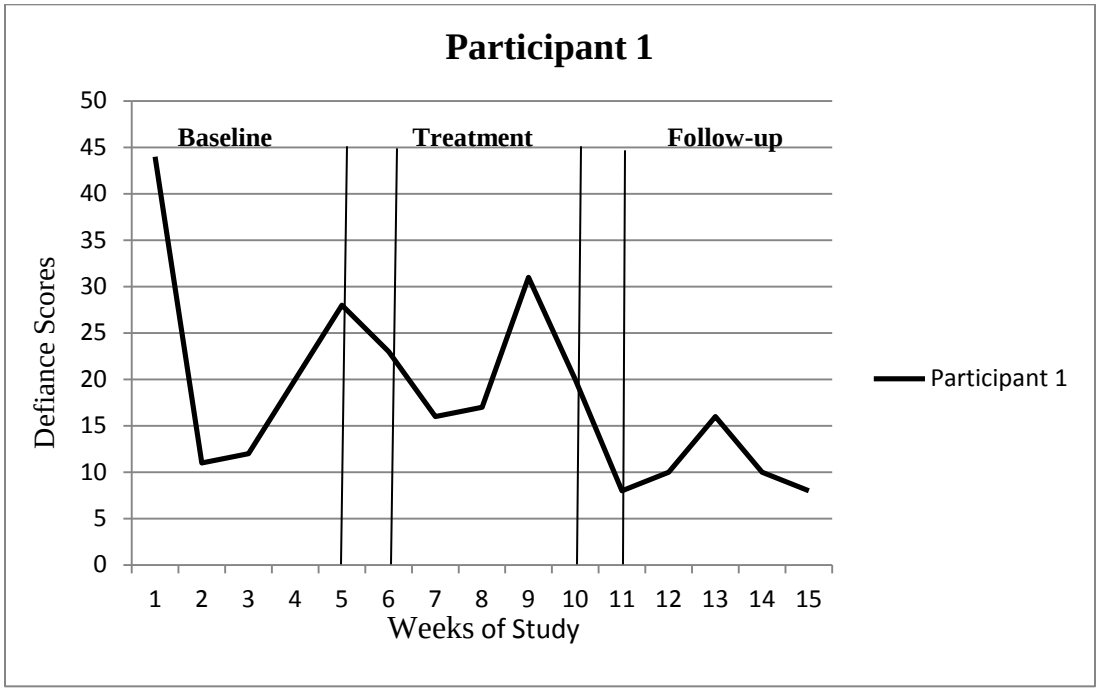
Figure 3. Defiance raw scores for Participant 4.



Participant 1

Participant 1 had no significant changes between the Baseline and Treatment phases. However, there were significant changes between Treatment and Follow-up (-.78). Scores were moderately correlated (-.65) with slope vector 2 (flat/decrease). Defiance was reduced across phases (23, 21.4, and 10.4). A detailed illustration of all defiance scores throughout the study is available in Figure 4. No changes were evident in either stress levels or externalizing/internalizing behaviors. Participant 1 completed training in 11.1 weeks and completed the entire study in 24.7 weeks.

Figure 4. Defiance raw scores for Participant 1.

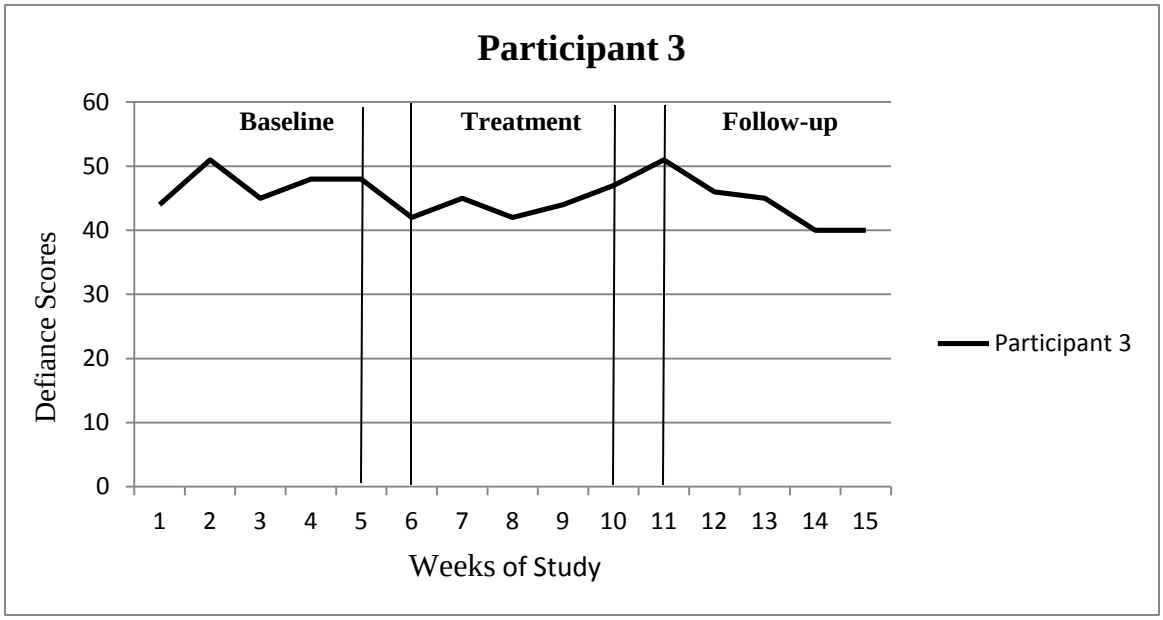


Participant 3

No significant changes were demonstrated between Baseline and Treatment phases. However, defiance scores from Training and Follow-up were highly correlated (.81) with slope vector 1 (increase/decrease). Defiance scores across phases decreased minimally (47.2, 44, and 44.4). A detailed illustration of all defiance scores throughout the study is

available in Figure 5. Stress levels minimally reduced in Baseline through Follow-up phases (31, 32 to 25, 28). No changes occurred for either externalizing or internalizing behaviors. Participant 3 completed training in 7.6 weeks and completed the entire study in 18 weeks.

Figure 5. Defiance raw scores for Participant 3.



Participant Feedback

Child-care Services.

The treatment-satisfaction questionnaire was given to all participants at the end of the study. All participants reported that having child-care services provided was essential for treatment adherence. Nevertheless, only participants 1 and 4 used the child-care services, and each only once. Instead, parent-training sessions were scheduled at the same time as the child's individual sessions, which allowed them to forgo other child-care options. Participant 2 reported, "The flexibility of the training being at the same time as when my child has to be here really helped with being able to attend all the sessions." Participant 1, 2 and 3 all reported the flexibility of rescheduling sessions greatly reduced

the stress they would have experienced from missing sessions. Participant 1 stated, "Sometimes I had to cancel because of having two jobs and other responsibilities. The researcher helped me schedule a time that was best and worked through obstacles with me."

Homework Completion.

Participants 1, 2, and 4 were successful in completing homework assignments between training sessions. Participant 2 stated, "It was awkward at first to try and actively parent differently, but it felt more natural the more I practiced the skills." Participant 3 reported having difficulty completing homework between sessions as a result of not having time and being unable to use these skills. Participant 3 specifically cited difficulty with implementing new parenting skills with all of her children because of the different needs of each child. She also reported trying certain skills and homework tasks at the start of training. However, once she did not see immediate results from new skills, she did not try other skills in training and admitted to not trying homework after the first week. Participant 3 admitted feeling hopeless about changing her child's behaviors and stated, "I've tried everything and it won't work. My son is just different" or "This homework and skills don't apply to my family."

Cultural Content.

Reactions to the use of cultural content in the parent training were consistent in all participants. All participants identified the cultural component as being "important," but not feeling as if it impacted the behaviors of their children. All participants reported that they believed their children were too young to discuss the concepts of racial socialization.

Furthermore, all participants reported increasing communication with their children as being very important and advantageous to behavioral change.

Overall Treatment Satisfaction.

Participant 1 reported her overall treatment satisfaction as "good." She reported the skills as being helpful and as providing "new ways" to look at her son's behaviors. Participant 1 admitted that when she feels overly stressed, she has a tendency to revert to previous methods of managing her son's behavior. However, she also admitted that the more she practices the new skills, the more it will come more naturally to her. Participant 1 also reported "scheduling flexibility really made it easy for me to reschedule when needed and reduce stress around missing appointments". Participant 2 reported her overall treatment satisfaction as "excellent." She stated, "I have really learned how my behaviors have been influencing his behaviors," and "I feel more confident in my ability to parent differently and more effectively." Participant 2 stated that first it was tempting to "give in" to demands made by her son. Learning alternative ways to set limits while still being supportive of her son's needs was a significant obstacle for her. Participant 2 also reported, "Setting limits was the most difficult to implement; after that, all the other skills came easier to me." Participant 3 reported her overall treatment satisfaction as "informative but sometimes not applicable to me and my situation." Participant 3 stated, "The training should be more specialized for each parent or child's needs." Participant 4 reported her overall treatment satisfaction as "great." She reported that she was able to learn how to punish appropriately and to utilize effective time-out procedures. Participant 4 stated, "I loved learning new parenting skills that really helped my son's behaviors," and "These skills are going to change the way me and my son interact."

Overall, participants found the flexibility of scheduling to be very helpful in attending sessions regularly. Accommodations, such as scheduling sessions while the child was being supervised, rescheduling when there were changes in the parents' schedules, and meeting on evenings and weekends to conform to demanding work schedules, were reported to be effective in maintaining treatment attendance and compliance.

Chapter 6: Discussion

Overview

Defiance.

Parent-training interventions have been identified in the literature as the best treatment option for reducing defiance in children (Brestan & Eyberg, 1998; McMahon, 2006; Nix, Bierman, & McMahon, 2009). This study examined the effect of a brief parent training on reducing defiant behaviors in children of African American single mothers. Results from the present investigation offered partial support for the parent training's positive effect on defiance. Parent training was associated with statistically significant reductions in defiance in 3 of 4 participants.

Three of the participants, 1, 2 and 4, exhibited reductions in defiance during the Treatment phase that continues throughout the Follow-up phases. The final participant (Participant 3) did not report any changes in defiance levels across the study. Reductions in defiance for participants 2 and 4 may be attributable to several factors: they actively engaged in acquiring new skills, participated fully during sessions, and successfully implemented these skills at home. Participants 2 and 4 also completed parent-training sessions in the shortest amount of time (6.3 and 4.6 weeks), which may indicate a higher level of motivation to complete treatment. As Armbruster and Fallon (1994) reported, motivation is often a determinant of treatment attendance and completion. Furthermore, these parents scheduled training sessions at the same time that their children received their own treatment at the facility, increasing the likelihood of attendance. As reported in the literature, the lack of child-care coverage has emerged as a barrier to treatment

attendance for single parents. Scheduling concurrent sessions for parents and children eliminated the need for child-care coverage

Participant 1 also reported decreased levels of defiance in her children. While participating in sessions, she was actively engaged and interested in learning new skills. Interestingly, although she was deeply engaged in treatment sessions she attended, it was harder for her to attend treatment sessions and to complete homework assignments. As her attendance became more consistent, her child's reported defiance levels decreased. Although Participant 1 struggled with attendance at the start, flexible scheduling allowed her to work through logistical obstacles while continuing treatment.

Parent-training programs are typically provided in a group setting, with sessions occurring at a predetermined day and time. If the parents are not available at that time, they miss the session (Johnson & Waller, 2006). The advantage of individual sessions is that the session can be scheduled in accordance with the parents' schedule. Therefore, Participant 1 benefited greatly from individual sessions and, in all likelihood, would not have benefited from group sessions. If she had not been offered flexible scheduling and individual sessions, she would have missed too much content for treatment to have an impact on her parenting style and ultimately her child's level of defiance.

Participant 3 reported no significant changes in defiance at any point in the study. This minimal change in defiance may be due to her noncompliance with completing homework. In addition, she reported excessive stress related to parenting multiple children. Participant 3 had three children; the other participants each had only one child. She reported having difficulty with consistently implementing consequences for her son's behavior when punishment would affect the other children. For example, prior to the

parent training, she attempted to punish her son for defiance by reducing his access to television. However, because there was only one television in the home, she did not follow through with the punishment because of her other children's desire to watch television. During treatment, the therapist talked to the parent about the importance of creating practical consequences that she would be able to implement. Nevertheless, she was resistant to making any of the recommended changes. She expressed "helplessness" in implementing new parenting strategies in her highly stressful environment. This "helplessness" seemed to affect her motivation in actively engaging in the treatment. She also demonstrated minimal awareness of the impact she could have on her child's negative behaviors. Participant 3 would frequently comment "this isn't going to work," and "my child is just different." Moreover, she believed the skill-building portion of parent training was not useful for her child's specific needs and that racial socialization discussions were irrelevant.

In an attempt to create a treatment program that was applicable to this population, racial socialization was included in the treatment. It was anticipated that racial socialization would increase communication and further develop the parent-child relationship. All parents reported that they did not find the addition of racial socialization dialogue diminished their child's defiance. Parents reported that the racial concepts were too advanced a topic to be discussed with their children, who ranged in age from 5 to 8.

Parental Stress.

This study also measured the effectiveness of a brief parent training on reducing participants' stress levels. As expected, stress levels were reduced, as defiance scores were simultaneously lowered for Participants 2 and 4. As discussed in the literature, if a

child's defiant behaviors are reduced, the parent's stress level decreases from not having to manage frequent negative behaviors. Furthermore, when a parent is less stressed, she is more likely to implement supportive parenting methods (Duncan, Brooks-Gunn, & Klebanow, 1994). Therefore, parents who can implement new skills that can reduce defiance will not only gain confidence in their ability to parent effectively, but will have less stress from not having to manage defiance frequently. Consistent with the literature, parents reported that as their ability to manage defiance increased, their stress levels associated with parenting decreased.

Participant 1's spike in stress levels just prior to and immediately following treatment suggests that the acquisition of new skills may have been a stressful experience. However, the reduction of stress at the end of the study suggests that it may have taken her time to adjust to implementing new parenting skills. Once she was more comfortable utilizing these skills, her stress levels decreased once again. Participant 3's stress levels were consistently high throughout the study, as indicated in both self-report measures and verbal communication; she asserted that her parenting stress was a direct result of having to parent three children. High stress levels could also explain why Participant 3 was resistant to trying new skills; she was hesitant to bring new techniques into her already stressful life.

Despite the potential for increasing stress while learning and implementing new skills, accommodations made in the parent-training structure were intended to minimize stress levels. Various studies have reported that parents miss therapy appointments for reasons such lack of child-care, lack of transportation, and scheduling conflicts (Assemany et al., 2002; Gross et al., 2009). To address these barriers to attendance,

accommodations were made to alleviate these issues for parents throughout the training process. Parents seemed to appreciate scheduling flexibility and child-care options, as evidenced by Participant 1's commen,t "scheduling flexibility really made it easy for me to reschedule when needed and reduce stress around missing appointments".

Overall Maladaptive Behaviors.

Positive effects of parent training on externalizing behaviors were noted for Participants 2 and 4. These results are consistent with the literature noting that defiance is highly related to aggression and hyperactivity (Redl, 2007; Keat, 2008). Parent training skills are not only helpful in reducing specific defiant behaviors, but are useful in reducing other externalizing behaviors. In fact, many current parenting programs including PMT, PCIT, and behavioral parenting programs (Reyno et al., 2006) address a variety of childhood maladaptive behaviors in addition to defiance.

Dropout Rates.

Premature termination can result in a higher probability that parents do not fully acquire and implement new parenting skills. Therefore, by not completing the treatment, they do not fully benefit from the parent training (Assemany & McIntosh, 2002). Dropout rates for current effective parent-training programs range from 25% to 35% (Reyno et al., 2006); therefore researchers have attempted to understand the barriers to treatment completion. In recognition of some of these barriers, the current study provided scheduling flexibility and child-care services, both of which seemed to increase treatment attendance. Furthermore, the brevity of the parent training was also intended to reduce dropout, because there were fewer sessions parents were required to attend. Although this

pilot study included only four participants, no participants dropped out after treatment began.

Limitations

A limitation of this study was the sample itself. Only four participants took part in this study, restricting the ability to generalize overall effectiveness for this population. Statistical analyses were unable to be conducted for parent stress factors and overall maladaptive behaviors because of the small number of participants. Furthermore, the experience of these four participants may not be representative of the population in general. These participants were from the same geographical region, of similar socioeconomic status, and were all recruited for the study for the same problematic behaviors in their children.

Another limitation to the present study is the short-term follow-up period. One important aspect of implementing new parenting skills involves consistent and longer-term application of skills. Therefore, reductions in defiance may not be demonstrated until time has passed to implement new parenting skills fully and consistently. Consequently, a short-term follow-up period would not assess the full integration of newly learned skills.

In addition to the time limitation, reports of children's behavior were requested only from the parents, thereby presenting a limited perspective of their children's behavior. A more thorough assessment would have included teachers' perspectives. Children tend to spend the majority of their weekday in school, and parents' reports may not account for behaviors displayed in school, which may differ from those in the home environment.

Implications of Findings

Findings from current research suggest adaptations of typical parent-training programs may alleviate levels of parental stress, as well as defiance and overall maladaptive behaviors in participant's children. For example, 3 of the 4 participants in this study showed better attendance than participants in more traditional parent-training programs. Moreover, none of the parents dropped out of the five-week training, which differs from other parent-training programs that struggle with high attrition rates (Lundahl et al., 2006; Lyon & Budd, 2010; Bernal & Scharro´n-Del-Rı´o, 2001). This difference in attendance and attrition may be attributable to accommodations that were made for participants in this study. In addition, accommodations such as child-care coverage, a briefer program of treatment, and individually scheduled sessions could have increased treatment completion. This brief parent training provided initial support for the acquisition of parenting skills in a shorter, five-session training program, rather than the already established parent-training programs that tend to be lengthier.

The current study showed minimal influence of cultural content on defiance levels; the age of the participants' children may best explain this result. Parents reported that their children were too young to talk about concepts associated with racial socialization, such as racism preparation and racial equality. Despite racial socialization being a concept that was too advanced for the children's age group, parents still considered the concept important. Three of the four parents reported that they identified with the material and therefore were more engaged in treatment.

Given the high attrition and dropout rates in this population, this study has provided preliminary support for accommodating families' needs. When possible

barriers to treatment attendance and completion are addressed, parents are more likely to participate actively in treatment. Moreover, session content that is relevant to this population can increase the acquisition of effective parenting skills and the motivation to attend and complete treatment.

Future Research

The results of this study suggested the potential influence that making accommodations can have on treatment effectiveness. Parents were more likely to attend treatment and reacted favorably to flexibility in scheduling, child-care services, and shorter treatment duration. Therefore, future research should focus on the accessibility of treatment services when planning interventions for a low-income single-parent population.

Investigating the efficacy of this parent-training program with a larger sample size is another avenue for future research. A larger sample size would more effectively evaluate the efficacy of the parent-training program, and provide possible statistical support for the validation of this treatment. With a larger sample, future research can explore his parent training's effectiveness for parents with multiple children. The only parent (Participant 3) in this study who had multiple children reported the least significant reduction of defiance. Evaluating the effectiveness for larger families is vital, because one-child households are less common than households with multiple children (Lyon & Budd, 2010).

Another consideration for future research is a modularized approach to treatment, especially for parents like Participant 3, who reported more difficulty with skill learning and implementation. For example, if needed the therapist can invite the child into the

parent session and ask the parent to practice some of the newly learned skills with the child present. This allows the therapist the opportunity to provide direct feedback to the parent in the session. This module would only be employed if the parent reported difficulty with implementation of the different parenting practices.

Moreover, a larger sample size has a greater range of ages, which would allow for a more thorough implementation of racial socialization concepts in older children. Should racial socialization be more readily discussed between parents and older children, research can evaluate the potential effect of cultural discussion on treatment outcomes. Additionally, the full integration of racial socialization in all aspects of treatment may be an area for future research. The current study presented racial socialization as a separate entity to be discussed in each session. A more integrated approach, in which racial concepts are discussed as part of each parenting skill rather than a stand-alone concept, may lead to a different outcome in the impact of racial socialization on improving parent connectedness. Finally, future research can also address some of the limitations of the current study, such as extending the follow-up period to assess possible long-term changes in children’s levels of defiance and parental stress.

Appendix

Session 1

Session Goals

1) Therapist builds rapport with parent.

2) Parent develops an understanding of how she can influence child's behaviors.

3) Parent learns skill of nondirective play.

4) Parent engages the child in nondirective play.

5) Parent learns and implements use of a behavior chart.

6) Therapist introduces the concept of racial socialization.

7) Parent learns to incorporate the cultural concept of racial pride in discussing the child's behaviors with him/her.

Objective

The main objective of the first session is to build confidence in the parent, so she will be able to make the changes necessary to improve her child's defiant behaviors. The therapist should ensure parental understanding of the main purpose of the brief parent training. Main goals of the brief parent-training intervention include reducing defiance, decreasing maladaptive behavioral patterns, and alleviating parental stress levels.

Session Breakdown

25 minutes--Setting Agenda/ Presenting Problem/Discussion of Racial Socialization The session will begin with setting the agenda, so the parent is aware of the goals of the first session. The therapist will make empathetic statements and allow the

parent to explain his/her experiences with handling childhood defiance. The therapist and parent will work together to operationally define the defiance. The therapist will explain that the brief parent training is meant to help parents learn new ways to manage defiant behaviors in their children. It is also important to explain to the parents that some of the content will be unfamiliar; therefore, they will be encouraged to ask questions. Racial socialization concepts are an example of potentially new content areas.

During the initial cultural discussion, the therapist will gather information about how often the parent discusses race and ethnicity with her child. Parents will learn what racial socialization means, and the four tenets of racial socialization that will be covered in the training. Racial socialization is the way children develop the behaviors, perceptions, values, and attributes of an ethnic group and come to see themselves and others as members of the group (Rotheram & Pinney, 1987, pg. 11). The four basic tenets are: 1) Racism Preparation, 2) Racial Pride, 3) Racial Equality, and 4) Racial Achievement. The therapist will emphasize how integrating racial components with the child's behaviors can help improve a child's perspective on how his/her negative behaviors are interpreted.

Parent will be encouraged to take 10 minutes to talk with the child at home about the concept of racial pride. The therapist will stress the importance of family traditions that the parent takes pride in that may have been passed down from other relatives. Examples of family traditions may be types of ethnic food or holiday celebrations. The parent may need to explain to the child how these traditions are influenced by their culture. The parent and child can discuss how the child's behaviors reflect positively or negatively on the family and the African American community as a whole. It is important

to remind the parent not to place blame on the child or make him/her feel guilty about past negative behaviors. Making connections between the child's behavior and the community may provide the child with additional motivation to improve behaviors. Once the parent has a good understanding of the goals of the brief parent training and the importance of discussing racial pride, therapists can begin introducing a new skill.

20 minutes--Nondirective Play This segment is used to teach the parent about nondirective play. It begins with educating the parent on why nondirective play is chosen as the first parenting technique. Explain how nondirective play helps to form or strengthen a positive relationship with the child. The therapist should gather information about enjoyable activities that the parent engages in with the child. The therapist will describe how activities that they already share for fun may differ from the use of nondirective play. Parents are instructed to spend at least 10 minutes twice a week engaging in nondirective play. The parents may believe they understand how to play with their child. However, the therapist will present ways to engage in activities chosen by the child without telling the child how to play. The child should take the lead in play and in all interactions that ensue from play. The importance of nondirective play is to have the child engage in enjoyable interactions with the parent without worrying about negative consequences of behaviors. It is vital that the parent understands how playing without direction builds the parent-child bond, which in turn should increase the child's motivation to improve his/her behaviors. The child can learn that time spent with the parent can be fun and desirable.

10 minutes--Role Playing and Modeling This time is devoted to role playing and modeling techniques to teach the parent how to use nondirective play. The parent

will have the opportunity to play the roles of both parent and child. The therapist should encourage questions about using nondirective play. The therapist will ensure that the parent understands the importance of nondirective play and the positive influence it can have on the parent-child relationship.

25 minutes--Introduce Behavior Chart The therapist will inform the parent about using behavior charts, and how they can positively influence the presence of appropriate behaviors through reinforcement. A behavior chart identifies and tracks behaviors over the course of daily interactions. Focusing on positive behaviors increases the likelihood of those positive behaviors recurring once reinforced, and decreases focus on negative behaviors. The therapist will explain positive wording: “Completed homework” in contrast to “Failed to complete homework.” The parent should identify three behaviors that she would like to encourage and record them on the behavior chart. On the chart, the day will be broken down into either two or three time frames. On days that the child is in school, typically Monday through Friday, the parent should monitor morning behaviors and evening behaviors. On days the child is not in school, the parent should separate the behavior chart into three parts: morning, afternoon, and evening. The parent will track the three selected behaviors daily between sessions. Therapist and parent will discuss potential rewards for the child if the parent observes certain amount of positive behaviors are over the course of a day or week. The therapist will instruct the parents to use small rewards to strengthen motivation for a larger reward at the end of the week. Explain that when the child is rewarded on a small scale, the child learns that his/her positive behavior is not going unnoticed and that he/she can earn desired items by behaving appropriately.

The parent will be asked to identify potential obstacles to completing the chart routinely and address them accordingly. The therapist will instruct the parent to display the behavior chart in a prominent place to ensure that she will be remember to complete the chart and inform the parent that the chart will be reviewed at the start of every session.

10 minutes--Homework Review and Question This last segment allows the parent time to clarify concepts or ask questions about the homework. It is important to restate the homework assignment to track three positive alternative behaviors to defiance on a daily basis. Other homework assignments include having a 10-minute conversation with the child about racial pride and engaging the child in nondirective play for at least 10 minutes twice a week. The therapist will provide the parent with a written copy of the homework list, which can increase compliance with out-of-session assignments. Time will be reserved for questions about the session itself and anything else related to the treatment. The therapist will thank the parent for participating in the first session, and told that the therapist looks forward to the next session. The session concludes with confirmation of the parent's appointment time for the next session.

Session 2

Session Goals

1) Therapist reviews and updates behavior chart.

2) Therapist reviews homework on communicating with the child about racial pride.

3) Therapist reviews homework on engaging the child in nondirective play.

4 Parent learns to use positive praise when interacting with the child.

5) Parent establishes a family routine with the child.

6) Parent incorporates the cultural concept of racial achievement when discussing the child's positive or negative behaviors with him/her.

Objective

The main objective of the second session is to augment skills learned in the first session by learning new parenting skills. The parent will be able to employ skills already learned routinely, as she develops new skills in the current session.

Session Breakdown

20 minutes--Setting Agenda/Review of Homework/Question The session begins with the therapist setting the agenda. The therapist will then review the homework assigned in the last session, and discuss reactions to completing homework. The therapist will also discuss with the parent whether she found the previously learned skills useful and if the skills have affected defiance. Therapist and parent will review and update the behavior chart. Parents can choose to continue monitoring the same behaviors or designate other behaviors to track with the chart. The therapist should validate the parent's efforts, because verbal encouragement can increase motivation to implement parenting skills.

20 minutes--Positive Praise This segment involves teaching the parent how to use positive praise when the child behaves appropriately or as instructed and explaining that positive praise is helpful in motivating the child to improve behaviors with a supportive rather than a punitive approach. The therapist emphasizes that positive praise is appropriate even when the child acts defiantly, and offers examples of positive praise, such as "Good job," "I'm proud of you," or "Thanks for doing what I asked."

The parent can positively praise a child's appropriate reaction to being punished or disciplined. The parent learns to use use positive praise to connect the child's positive behaviors with the cultural value of racial achievement and should spend 10 minutes talking with her child about racial achievement, defining it as knowing that as an African American, the child may have to work twice as hard in school than his/her counterparts to achieve success. The parent should emphasize the importance of achieving personal goals with determination and the fortitude to work through obstacles. The therapist instructs the parent to connect the child's current strengths to their importance in relation to racial achievement. The parent will be urged to select a positive quality or asset that the child possesses and to emphasize the importance of using this talent to achieve for the family and for the race.

10 minutes--Role Playing and Modeling This time should be used role playing or modeling the use of positive praise. The therapist will challenge the parent to find reasons for positively praising her child's behaviors in negative situations, and will allow the parent to play the roles of parent and child to experience how both sides are affected by positive praise. Parents will be encouraged use role playing to simulate everyday situations, which can teach parents that opportunities for positive praise can occur at any time.

20 minutes--Establishing Family Routine The segment' goal is to educate the parent about the importance of having a specific time set aside to interact with her child. The therapist will explain that establishing a family routine serves two functions in strengthening the parent-child relationship. First, a family routine provides the child with a sense of security about the parent meeting the child's needs. Second, a family routine

establishes a schedule of events in which parent and child share quality time. The parent will be instructed to schedule three activities twice each week. It is important to clarify the difference between establishing a routine and nondirective play. The therapist will stress that the family routine should focus on simple activities without the negative emotional associations of, for example, task demands, and explain that a family routine consist of several different scheduled activities, such as washing hands before dinner, eating together, and later watching television for an hour. The parent will be encouraged to initiate the routine with one activity. The parent will identify the activity she prefers to establish first as a routine to begin following this session. Consistence in adhering to the family routine can solidify the importance of reserving time for parent and child to spend together.

10 minutes--Role Playing and Modeling This time should be used for role playing the establishment of a family routine. It is important to employ role playing with a child who is resistant to family routines. The therapist will encourage the parent to ask questions and express concerns as she engages in role playing.

10 minutes--Homework Review and Questions The last segment reiterates the homework tasks of maintaining the behavior chart, implementing positive praise, and establishing family routine. Remind the parent to establish a family routine between sessions, with two episodes, each lasting at least 30 minutes, based on the activities chosen by the parent and child during the session. The therapist will mention the 10-minute conversation about racial achievement that the parent should have with the child. The parent should use positive praise in all interactions with the child. The therapist will give the parent a copy of the homework assignment to be completed before the next

session. The therapist should encourage questions and requests for clarification, so the parent feels able to complete the assignments. The therapist schedules the next session, and concludes by thanking the parents for participating in the second session and positively praising their effort to attend treatment

Session 3

Session Goals

1) Therapist reviews use and updates behavior chart.

2) Therapist reviews use of positive praise and establishing family routine.

3) Parent learns skill of limit setting.

4) Parent learns skill of time-out.

5) Parent learns to incorporate the concept of racial equality in conversations with her child and to connect this concept to defiant behaviors.

Objective

The principal objective of the third session is continuing to build the parent's repertoire of skills for managing defiant behaviors. The therapist will ensure the parent's thorough understanding of the concepts involved and appropriate ways to implement the new skills.

Session Breakdown

20 minutes--Setting Agenda/Homework Review/Question The session will begin with setting the agenda. The first part of the session will focus on reviewing and updating the behavior chart. The therapist will also review previously learned skills. The behavior chart will be adjusted, if the parent wants to focus on new behaviors. The

therapist will also assess whether the parent was able to use positive praise and establish a family routine. The therapist will encourage any questions about previously learned skills or difficulties the parent may have experienced with implementation of skills.

20 minutes--Limit Setting This segment of the session will focus on ways to set appropriate limits with follow-up consequences. The therapist will inform the parent that the child can develop an association between the parent and limits to his/her behaviors, and explain that the parent can serve as a discriminative stimulus, in which her presence can trigger a positive reaction by the child to follow limit setting. The therapist will define limit setting as allowing the child to engage in certain behaviors, such as playing video games for a specified time. The parent should place a limit on the activity, and the child is expected to observe that limit. The parent will identify one specific limit she would like to set for the following week. The therapist will work with the parent to establish appropriate consequences for the child's observing or failing to observe the limits set, and instruct the parent to select appropriate consequences that will be implemented consistently. The parent will speak to her child for 10 minutes about the socialization topic of racial equality. The therapist will inform the parent that racial equality means communicating that others be judged not by the color of their skin or ethnicity, but rather by their actions and interactions with others. The parent can discuss with her child why defiant behaviors can result in him/her being judged negatively by others. On the contrary, if the child behaves appropriately, he/she will be viewed positively.

10 minutes--Role Play and Modeling The therapist will use this time to role play and model with the parent ways of setting appropriate and firm limits.

20 minutes--Time Out This segment of the third session will focus on teaching the parent to use the time- out procedure effectively for child noncompliance or defiance. The therapist will talk with parents about past use of time-out procedures and potential misconceptions about administering time-out. The therapist will correct any negative approaches to time-out previously used by parents in trying to decrease negative behaviors. The therapist will ensure that parents conduct time-out in a location in which there is no external stimulation, such as a television, cell phone, or computer. The child will be instructed to sit in a chair away from walls and any other distractions. The length of the time-out is typically 1 to 2 minutes per year of the child's age. For example, if the child is 8 years-old, he/she would be placed in time out for 8 to 16 minutes. The therapist should emphasize the importance of the parent clearly and calmly stating why the child is being put in time-out. The parent is also instructed to keep track of the time and to be as precise as possible in administering time-out. The therapist will revisit the use of positive praise by the parent when the child successfully completes the time-out, for example, "Thank you for taking time out," or "You did well with following the time-out." The child must correct the behavior that led him/her into time-out.

10 minutes--Role Play and Modeling The therapist will devote this time to engaging the parents in role playing and modeling techniques enacting effective use of time-out and to discussing possible obstacles to using time-out effectively. The therapist will role play a child disobeying the rules of time-out, challenging the parent to respond appropriately. The parent should also portray a difficult child resisting time-out.

10 minutes--Homework/Question At this time, the therapist will remind the parent to continue implementing the behavior chart, praising parents for using skills

appropriately and consistently over the course of the training. The therapist will revisit the use of limit setting on one behavior selected during the session. The therapist will also discuss the parent having a 10-minute conversation with her child about racial equality. The therapist will give the parent a copy of the homework assignment to increase the likelihood of her completing homework assignments. Time will be allowed for questions by the parent or for any clarification needed about skills learned during this session. The therapist will reiterate that the skills learned to this point can be used as situations dictate.

Session 4

Session Goals

1) Therapist reviews use and updates behavior chart.

2) Therapist and parent review use of limit setting and time-out.

3) Parent learns punishment techniques and how to implement them effectively.

4) Parent learns the skill of negotiating.

5) Parent incorporates the cultural concept of racism preparation when discussing the child's negative behaviors with him/her.

Objective

The main objective of the fourth session is to increase the parent's knowledge of negotiation and punishment. The parent will learn alternative ways to decrease negative behaviors through these techniques.

Session Breakdown

20 minutes--Setting Agenda/Homework Review/Questions The session will begin with the therapist setting the agenda. The therapist will review the completed behavior chart and update it accordingly. The therapist will discuss parent's reactions to utilizing limit setting, time-out procedures, and the cultural discussion of racial equality and encourage questions about previously learned skills and using them appropriately. When questions are answered and homework reviewed, the therapist will introduce the next parenting skill.

20 minutes—Punishment During this segment of the session, the therapist will gather information from the parent about prior use of punishment; the topic of corporal punishment may arise. The therapist will emphasize that punishments be clearly stated, and the child must understand which specific behavior is being punished. The therapist will ask the parent to identify a behavior that she will not tolerate and will punish. If the child did not follow limit-setting guidelines, the parent will be encouraged to use punishment to follow-through on limit setting. The therapist will inform the parent to focus punishment on the specific behavior that she wants to punish, and to stipulate to the child the punishment for engaging in a particular negative behavior and to follow-through immediately with that punishment. The parent will be told to focus on punishing only current negative behaviors and not punishing past negative behaviors.

The therapist will encourage the parent to talk to the child for a 10-minute period about the cultural concept of racism preparation in relation to the child's negative behaviors. The therapist will discuss with the parent how racism preparation involves the parent preparing her child to overcome potential obstacles that he/she may face as a result

of racism. The parent should point out that defiant behaviors can create more barriers to social interactions for an African American child.

10 minutes--Role Playing and Modeling Use this time to role play and model the appropriate use of punishment.

20 minutes--Negotiating The therapist will emphasize that negotiating is intended to improve communication and collaboration between the parent and child. The child will be given an opportunity to negotiate for desired items that the parent is willing to provide. Negotiating involves the parent and child working together to decide on rewards and negative consequences for behaviors. The parent should be flexible with rewards the child desires to increase collaboration. However, the parent should also identify which items or behaviors are--or are not--negotiable. The child may be rewarded with a candy bar if he/she successfully completes a chore. The child may initially request a whole bag of candy, and the parent may not want to provide candy as a reward. Through the process of negotiating, the parent and child come to an agreement on the proper reward for completing the chore. Rewards are more likely to motivate desired behaviors if the child selects them.

10 minutes--Role Play Parent will use role playing or modeling techniques to learn to negotiate effectively with her child.

10 minutes--Homework Review/Questions The therapist will revisit ways that the parent will utilize punishment for a specific behavior that she considers intolerable. The therapist and parent will discuss particular behaviors the parent can select to test negotiating. The therapist will provide the parent with a copy of the homework assignment, with specific behaviors chosen to increase compliance with assignments. The

therapist will allow time for any questions about homework or concepts discussed during the session.

Session 5

Session Goals

1) Therapist reviews and updates behavior chart.

2) Therapist and parent review use of punishment and negotiating skills.

3) Parent learns how to utilize behavioral contracts.

4) Therapist and parent review all previously learned skills.

5) Parent reviews knowledge of racial socialization concepts.

Objective

The main objective of the final session of the treatment is to teach the parent the new skill of developing behavioral contracts. The parent will review all skills learned during the parent training, as well as the racial socialization concepts discussed. The parent and therapist will explore together potential obstacles and reactions to the brief parent-training experience.

Session Breakdown

20 minutes--Agenda Setting/Questions/Homework Review The therapist will begin the session by setting an agenda. The therapist will encourage any questions that the parent may have about previous session content. The therapist will review and update the behavior chart if necessary. The therapist will also discuss changes evidenced by the behavior chart over the course of treatment. Parent and therapist will review reactions to implementing previous session skills.

20 minutes—Contracting This segment of the session will discuss the concept of using behavioral contracts to elicit positive behaviors. The therapist will inform parents about the use of contracting from the perspectives of social learning and behavioral theories. The therapist will emphasize that contracting is used in conjunction with other techniques, such as negotiating and limit setting. The therapist will explain that the contract is a way to establish clear expectations, with rewards and consequences for specific behaviors identified on the contract. A behavioral contract sets down on paper a clearly defined behavior and goal. There are both rewards for completing the contract and negative consequences for not completing the contract. The consequences should increase in severity if the child persists in not following the contract. The parent will be encouraged to follow the contract's guidelines. The contract should stipulate that if the contract is not met after a specified number of attempts, the parent punishes her child accordingly. This ensures that the child knows the consequences of his/her behaviors prior to punishment. Behaviors selected for inclusion in a contract must be easily measurable and observable, such as taking out garbage or washing dishes.

10 minutes--Modeling and Sample Contract This time will be used to model the creation of a behavioral contract and to develop a sample contract for the parent to follow. The sample contract will illustrate to the parent how to work collaboratively with her child to establish the contract. The contract will specify behaviors that will earn the child his/her desired rewards. The contract will also define the potential consequences of not meeting behavioral goals. The therapist will assist in developing the contract by describing the target behavior in very precise terms. Once the behavior is identified, parent and therapist will discuss appropriate consequences, both positive and negative,

for engaging in the behavior. The contract must state how long it will be in effect, establishing clear expectations of when the child must meet behavioral goals. For example, John will finish his homework before 4:00pm. If John completes his homework by 4:00pm, he will gain one hour of television time later that evening. If John does not complete his homework by 4:00pm, he will lose one hour of television time later that evening. Parents must emphasize that no excuses are accepted for not meeting the contract.

15 minutes--Review of Parenting Skills The therapist will review all parenting skills in the order that they were presented in the training. The therapist will ask the parent to explain how to implement the skills. Revisiting skills previously learned can improve implementation of these skills after the end of treatment. The therapist will work through with the parent specific skills they may have struggled with in the training. Certain skills are most effective in particular times, such as punishment, time-out, or withholding a positive experience. Parenting skills, such as nondirective play, positive praise, a family routine, and behavior charts are all positive parenting methods. The therapist will emphasize that these skills contribute to a healthy parent-child relationship. Parenting skills improve general communication (racial discussions, positive praise), spending quality time with each other (nondirective play, establishing a family routine), working together for a common goal (contracting, negotiating, limit setting), and implementing appropriate consequences for negative behaviors (punishment, time out).

15 minutes--Review of Racial Socialization The therapist will review the concepts of racial socialization that have been discussed in the training, and ensure the parent understands that these concepts increase positive communication and strengthen

racial identity. Open conversations about race and the effect an individual's race has on his/her experience in society can enhance racial identity and awareness. The parent is urged by the therapist to continue discussing racial concepts with her child periodically.

10 minutes--Questions/Treatment Wrap Up The final segment of the parent training will explore the parent's positive or negative experience with the treatment. The therapist will conduct discussions of the treatment's effect on the parent's child. The therapist will emphasize improvements the parent has made and the importance of building on these initial changes. The therapist will acknowledge failures the parent has experienced and discuss ways to enhance skill implementation. Potential obstacles to implementing parenting skills consistently following the parent training will also be discussed. The therapist will thank the parent for performing the program's assignments on a regular basis, and congratulate her on completing the program.

References

Anastopoulos, A. D., Shelton T. L., and DuPaul G. J. (2003). Parent training for attention-deficit hyperactivity disorder: Its impact on parent functioning. *Journal of Abnormal Child Psychology, 21,* 581-596.

Anastopoulos, A. D., & Sommer, J. L. (2008). Parent training for children with ADHD: A therapeutic component analysis. Washington, District of Columbia, US: American Psychological Association (APA).

Armbruster, P. & Fallon, T. (1994). Clinical, sociodemographic, and systems risk factors for attrition in a children's mental health clinic. *American Journal of Orthopsychiatry, 64,* 577-585.

Assemany, A. E. & McIntosh, D. E. (2002). Negative treatment outcomes of behavioral parent training programs. *Psychology in the Schools, 39*(2), 209-219.

Axelrod, M.E., Garland, B.H., & Love, K.B. (2009). Brief behavioral interventions for young children with disruptive behaviors. *Journal of Clinical Psychology, 16,* 263-269.

Baer, D. M., Wolf, M. M., & Risley, T. R. (1987). Some still-current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 20,* 313-327.

Balliet, D., Mulder, L. B., & Van Lange, P. M. (2011). Reward, punishment, and cooperation: A meta-analysis. *Psychological Bulletin, 137*(4), 594-615.

Barkley, R. A. (1997). *Defiant children: A clinician's manual for parent training (2nd ed.).* New York: Guilford Press.

Barkley, R. A., Edwards, G., Laneri, M., Fletcher, K., & Metevia, L. (2001). The efficacy of problem-solving communication training alone, behavior management training

alone, and their combination for parent–adolescent conflict in teenagers with ADHD and ODD. Journal Of Consulting And Clinical Psychology, 69(6), 926-941.

Barrett, A. E., & Turner, R. J. (2005). Family structure and mental health: The mediating effects of socioeconomic status, family process, and social stress. *Journal of Health and Social Behavior, 36*, 156–169.

Barrett, P., Turner, C., Rombouts, S., & Duffy, A. (2000). Reciprocal skills training in the treatment of externalizing behavior disorders in childhood: A preliminary investigation. *Behaviour Change, 17*(4), 221-234.

Bartz, K. W., & Levine, B. S. (1978). Childrearing by Black parents: A description and comparison to Anglo and Chicano parents. *Journal of Marriage and Family, 40*, 709-720.

Bassuk, E. L., Browne, A., & Buckner, J. C. (1996). Single mothers and welfare. *Scientific American, 275*, 60–67.

Berge, J. M., Law, D. D., Johnson, J., & Wells, M. G. (2010). Effectiveness of a psychoeducational parenting group on child, parent, and family behavior: A pilot study in a family practice clinic with an underserved population. *Families, Systems, & Health, 28*(3), 224-235.

Bernal, G., & Scharro´n-Del-Rı´o, M. R. (2001). Are empirically supported treatments valid for ethnic minorities? Toward an alternative approach for treatment research. *Cultural Diversity and Ethnic Minority Psychology, 7*, 328–342.

Berry, J. O. & Jones, W. H. (1995). The Parental Stress Scale: Initial psychometric evidence. *Journal of Social and Personal Relationships, 12*(3), 463 – 472.

Bierman, K. L., & McMahon, R. J. (2009). Just being there is not enough: Influences on parent management training treatment response. Washington, District of Columbia, US: American Psychological Association (APA).

Bjørknes, R., Jakobsen, R., & Nærde, A. (2011). Recruiting ethnic minority groups to evidence-based parent training. Who will come and how? *Children & Youth Services Review, 33*(2), 351-357.

Borckardt, J. J., Nash, M. R., Murphy, M. D., Moore, M., Shaw, D., & O'Neil, P. (2008). Clinical practice as natural laboratory for psychotherapy research: A guide to cade-based time-series analysis. *American Psychologist, 63*(2), 77-95.

Bowlby, J. (1982). *Attachment and loss*. London: Penguin.

Bowlby, J. (1988). *A secure base: Parent–child attachment and healthy human development*. New York: Basic Books.

Bowman, P. J. & Howard, C. (1985). Race-related socialization, motivation, and academic achievement: A study of black youth in three-generation families. *Journal of the American Academy of Child Psychiatry, 24,* 143-151.

Bowman, S. A., & Harris, E. W. (2003). Food Security, Dietary Choices, and Television-Viewing Status of Preschool-Aged Children Living in Single-Parent or Two-Parent Households. *Family Economics & Nutrition Review, 15*(2), 29-34.

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology, 27,* 180–189.

Canning, S. S. & Fantuzzo, J. W. (2000). Competent families, collaborative professionals: Empowered parent education for low income, African American families. *Journal of Prevention & Intervention in the Community, 20*(1/2), 179-196.

Caughy, M. O., Campo, P. J., Randolph, S. M., & Nickerson, K. (2002). The influence of racial socialization practices on the cognitive and behavioral competence of African American children. *Child Development, 73,* 1611-1625.

Casey, P.H., Szeto, K., Lensing, S., Gogle, M., & Weber, J. (2001). Children in food-insufficient, low-income families: Prevalence, health and nutrition status. *Archives of Pediatrics and Adolescent Medicine, 155*(4), 508-514.

Centers for Disease Control and Prevention (2010). Teen pregnancy. Retrieved from http://www.cdc.gov/teenpregnancy.

Coard, S. I., Wallace, S. A., Stevenson Jr., H. C., & Brotman, L. M. (2004). Towards culturally relevant preventive interventions: The consideration of racial socialization in parent training with African American families. *Journal of Child & Family Studies, 13*(3), 277-293.

Compas, B. & Williams, R. (1990). Stress, coping, and adjustment in single and two-parent families. *American Journal of Community Psychology*, *18*, 525-545.

Deklyen, M. (2006). The Mental Health of Married, Cohabiting, and Non--Coresident Parents With Infants. *American Journal of Public Health*, *96*(10), 1836-1841.

Dishion, T. (2002). Age effects in parent training outcome. *Journal of Behavioral Therapy, 23,*719-29.

Dowdy, E., Chin, J. K., Twyford, J. M., & Dever, B. V. (2011). A Factor Analytic Investigation of the BASC-2 Behavioral and Emotional Screening System Parent

Form: Psychometric Properties, Practical Implications, and Future Directions. *Journal of School Psychology, 49(*3), 265-280.

Dumas, J. E. & Wahler, R. G. (1983). Predictors of treatment outcome in parent training: Mother insularity and socioeconomic disadvantage. *Behavioral Assessment, 5*, 301-313.

Duncan, G., Brooks-Gunn, J., & Klebanow, P. (1994). Economic deprivation and early childhood development. *Child Development, 65*, 296-318.

Eyberg, S. M. (2005). Tailoring and adapting Parent-Child Interaction Therapy to new populations. *Education & Treatment Of Children (ETC), 28*(2), 197-201.

Eyberg, S., Nelson, M.M., & Boggs, S.R. (2008). Evidenced-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Child and Adolescent Psychology, 37*, 215-237.

Eyberg, S. M., & Robinson, E. A. (1982). Parent–Child Interaction Training: Effects on family functioning. *Journal of Clinical Child Psychology, 11*, 130–137.

Fitzgibbon, M.L., Stolley, M.R., Dyer, A.R., Van Horn, L., & Kaufer-Christoffel, K. (2002). A community-based obesity prevention program for minority children: Rationale and study design for Hip-Hop to Health Jr. *Preventive Medicine, 34*(2), 289-297.

Forehand, R. L., & Long, N. (2002). Parenting the strong-willed child: The clinically proven five-week program for parents of two- to six-year-olds. Chicago: Contemporary Books.

Forehand, R., Middlebrook, J., Rogers, T., & Steffe, M. (1983). Dropping out of parent training. *Behavior Research and Therapy, 21*, 663-668.

Frabutt, J. M., Walker, A. M., & MacKinnon-Lewis, C. (2002). Racial socialization messages and the quality of mother/child interactions in African American families. *Journal of Early Adolescence, 22,* 200-217.

Frankel, F., & Simmons, J. Q. (1992). Parent behavioral training: Why and when some parents drop out. *Journal of Clinical Child Psychology, 21*(4), 322-330.

Garbarino, J. (1995). The American war zone: What children can tell us about living with violence. *Journal of Developmental and Behavioral Pediatrics, 16*(6), 431-435.

Gardner, H. L., Forehand, R., & Roberts, M. (1976). Time-out with children: Effects of an explanation and brief parent training on child and parent behaviors. *Journal of Abnormal Child Psychology, 3*(4), 277-288.

Gross, D., Garvey, C., Julion, W., Fogg, L., Tucker, S., & Mokros, H. (2009). Efficacy of the Chicago Parent Program with low-income African American and Latino parents of young children. *Prevention Science, 10,* 54-65.

Hall, L. A., Rayens, M., & Peden, A. R. (2008). Maternal Factors Associated With Child Behavior. *Journal of Nursing Scholarship, 40*(2), 124-130.

Hagen, K., Ogden, T., & Bjørnebekk, G. (2011). Treatment Outcomes and Mediators of Parent Management Training: A One-Year Follow-Up of Children with Conduct Problems. *Journal of Clinical Child & Adolescent Psychology, 40*(2), 165-178.

Hamilton B., Martin J., Ventura S., Births: Preliminary data for 2007. National vital statistics reports; Vol. 57 no 12. Hyattsville, MD: National Center for Health Statistics. 2009.

Harada, Y., Saitoh, K., Iida, J., Sasayama, D., Sakai, A., Imai, J., & Amano, N. (2008). Establishing the cut-off point for the Oppositional Defiant Behavior Inventory. Psychiatry and Clinical Neurosciences, 62(1), 120-122.

Harrington, R., Peters, S., Green, J., Byford, S., Woods, J., & McGowan, R. (2000). Randomized comparison of the effectiveness and costs of community and hospital based mental health services for children with behavioural disorders. *British Medical Journal, 321*(7268), 1047-1050.

Hobbs, S. A., Walle, D. L., & Hammersly, G. A. (1990). The relationship between child behavior and acceptability of contingency management procedures. *Child and Family Behavior Therapy, 12*, 95-102.

Hommersen, P., Murray, C., Ohan, J. L., & Johnston, C. (2006). Oppositional Defiant Disorder Rating Scale: Preliminary Evidence of Reliability and Validity. *Journal of Emotional and Behavioral Disorders, 14*(2), 118-125.

Honig, W. K., & Staddon, J. (1977). *Handbook of operant behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Hood, K. K., & Eyberg, S. M. (2003). Outcomes of Parent-Child Interaction Therapy: Mothers' Reports of Maintenance Three to Six Years after Treatment. *Journal af Clinical Child & Adolescent Psychology, 32*(3), 419.

Ingoldsby, E. M. (2010). Review of interventions to improve family engagement and retention in parent and child mental health programs. *Journal of Child and Family Studies, 19*, 629-645.

Jarrett, M. A., & Ollendick, T. H. (2012). Treatment of comorbid attention-deficit/hyperactivity disorder and anxiety in children: A multiple baseline design analysis. *Journal of Consulting and Clinical Psychology, 80*(2), 239-244.

Johnson, M. E. & Waller, R. J. (2006). A review of effective interventions for youth with aggressive behaviors who meet diagnostic criteria for conduct disorder or oppositional defiant disorder. *Journal of Family Psychotherapy, 17*(2), 67-80.

Johnston, J. M. & Pennypacker, H. S. (1993). *Strategies and tactics of behavioral research* (2nd edition). Hillsdale, NJ: Erlbaum.

Kazdin, A.E. (2005). *Parent management training: Treatment for oppositional, aggressive, and antisocial behavior in children and adolescents*. New York: Oxford University Press.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1992). Cognitive problem-solving skills training and parent management training in the treatment of antisocial behavior in children. *Journal of Consulting and Clinical Psychology, 60*(5), 733-747.

Kazdin, A. E. & Whitley, M. K. (2003). Treatment of parental stress to enhance therapeutic change among children referred for aggressive and antisocial behavior. *Journal of Consulting & Clinical Psychology, 71*, 504-515.

Keat, J. (2008). Decreasing Child Defiance: Is Inquiry Indispensable?. *Early Childhood Education Journal*, 36(2), 155-160.

Krebs, L. (1986). Current research on theoretically based parenting programs. *Individual Psychology: Journal of Adlerian Theory, Research, and Practice, 42*, 375-387.

Lecroy, C. W. (1988). Anger management or anger expression: Which is most effective? *Residential Treatment for Children & Youth, 5*(3), 29-39.

Lee, M., Greene, G., Hsu, K., Solovey, A., Grove, D., Fraser, J., & Teater, B. (2009). Utilizing family strengths and resilience: integrative family and systems treatment with children and adolescents with severe emotional and behavioral problems. *Family Process, 48*(3), 395-416.

Lehner-Dua, L. (2002, April). The effectiveness of Russell A. Barkley's parent training program on parents with school-aged children who have ADHD on their perceived severity of ADHD, stress, and sense of competence. Dissertation Abstracts International, 62.

Lundahl, B., Risser, H. J., & Lovejoy, M. C. (2006). A meta-analysis of parent training: Moderators and follow-up effects. *Clinical Psychology Review, 26,* 86-104.

Lyon, A., & Budd, K. (2010). A community mental health implementation of Parent–Child interaction therapy (PCIT). *Journal of Child and Family Studies, 19,* 654-668.

McClendon, D. T., Warren, J. S., M. Green, K., Burlingame, G. M., Eggett, D. L., & McClendon, R. J. (2011). Sensitivity to change of youth treatment outcome measures: a comparison of the CBCL, BASC-2, and Y-OQ. *Journal of Clinical Psychology, 67*(1), 111-125.

McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61*, 311-345.

McMahon, R. J. (2006). Parent training interventions for preschool-age children. *Journal of Consulting and Clinical Psychology, 70*(5), 370-378.

Meichenbaum, D., & Turk, D. C. (1987). *Facilitating treatment adherence: A practitioner's guidebook.* New York: Plenum Press.

Nock, M. K., & Kazdin, A. E. (2005). Randomized controlled trial of a brief intervention for increasing participation in parent management training. *Journal of Consulting and Clinical Psychology, 73*(5), 872-879. doi:10.1037/0022-006X.73.5.872.

Nock, M. K., & Kazdin, A. E. (2002). Parent-directed physical aggression by clinic-referred youths. *Journal of Clinical Child and Adolescent Psychology, 31*, 193–205.

O'Laughlin, E. M., Hackenberg, J. L., & Riccardi, M. M. (2010). Clinical usefulness of the Oppositional Defiant Disorder Rating Scale (ODDRS). *Journal of Emotional and Behavioral Disorders, 18*(4), 247-255.

Orrell-Valente, J. K., Pinderhughes, E. E., Valente, E., Jr., & Laird, R. D. (1999). If it's offered, will they come? Influences on parents' participation in a community-based conduct problems prevention program. *American Journal of Community Psychology, 27*, 753-783.

Ou, H., Feldman, S. R., Balkrishnan, R. (2010). Understanding and improving treatment adherence in pediatric patients. *Seminars in Cutaneous Medicine and Surgery, 29*, 137–140.

Patterson, G. R. (1976). The aggressive child: victim and architect of a coercive system. In: Mash, E. J., Hamerlynck, L. A., Handy, L. C., editors. *Behavior modification and families*. New York: Brunner/Mazel. 267–316.

Patterson, G.R. (1982). *A social learning approach: 3. Coercive family process*. Eugene, OR: Castalia.

Patterson, G.R., Reid, J.B., & Dishion, T.J. (1992). *A social interactional approach, Vol. 4: Antisocial boys*. Eugene, OR: Castalia Publishing Company.

Rashid, H. (1985). Black family research and parent education programs: The need for

convergence. *Contemporary Education*, *56*, 180-185.

Redl, F. (2007). Rethinking Youthful Defiance. *Reclaiming Children & Youth, 16*(1), 33-35.

Reid, M. J., Webster-Stratton, C., & Hammond, M. (2001). Parent training in Head Start: A comparison of program response among African American, Asian American, Caucasian, and Hispanic mothers. *Prevention Science, 2,* 209-227.

Reid, M. J., Webster-Stratton, C., & Hammond, M. (2003). Follow-up of children who received the incredible years intervention for oppositional-defiant disorder: Maintenance and prediction of 2-year outcome. *Behavior Therapy, 34*(4), 471-491.

Reyno, S. M., & McGrath, P. J. (2006). Predictors of parent training efficacy for child externalizing behavior problems – a meta-analytic review. *Journal of Child Psychology & Psychiatry, 47*(1), 99-111.

Rotherman, M. J. & Phinney, J. S. (1987). Children's ethnic socialization: Pluralism and development. Beverly Hills, CA: Sage. (pp. 10-28).

Sanders, M. R., Glynn, T. (1981). Training parents in behavioral self-management: An analysis of generalization and maintenance. *Journal of Applied Behavior Analysis, 14,* 223-237.

Schlinger, H. D. (1992). Theory in behavior analysis: An application to child development. *American Psychologist, 47,* 1396-1410.

Sheely-Moore, A., & Ceballos, P. L. (2011). Empowering head start African American and latino families: Promoting strengths-based parenting characteristics through child parent relationship training--an evidence-based group parenting program. *NHSA Dialog, 14*(1), 41-53.

Shriver, M. & Allen, K. (1997). Defining child noncompliance: An examination of temporal parameters. *Journal of Applied Behavior Analysis, 30*, 173-176.

Simons, L. G., Chen, Y., Simons, R. L., Brody, G., & Cutrona, C. (2006). Parenting practices and child adjustment in different types of households: A study of African-American families. *Journal of Family Issues, 27*, 803–825.

Singh, N. N., Lancioni, G. E., Winton, A. W., Singh, J., Singh, A. N., Adkins, A. D., & Wahler, R. G. (2010). Training in mindful caregiving transfers to parent-child interactions. *Journal of Child And Family Studies, 19*(2), 167-174.

Skinner, B. F. (1974). *About behaviorism*. New York: Random House.

Spaid, W. (2004). The use of guided imagery for cocaine abuse: a single subject multiple baseline study. *Journal of Evidence-Based Social Work, 1*(4), 83-96.

Spoth, R., & Redmond, C. (2002). Project family prevention trails based in community-university partnerships: Toward scaled-up preventive interventions. *Prevention Science, 3*(3), 203-221.

Strain, P. S. & Joseph, G. E. (2004). A not so good job with “Good Job”: A response to Kohn 2001. *Journal of Positive Behavior Interventions, 6,* 55-59.

Szapocznik, J., Perez-Vidal, A., Brickman, A., Foote, F. H., Santisteban, D., Hervis, O., & Kurtines, W. M. (1988). Engaging adolescent drug abusers and their families in treatment: A strategic structural systems approach. *Journal of Consulting and Clinical Psychology, 56*, 552–557.

Taylor, K., Schmidt, F., Pepler, D., & Hodgins, C. (1998). A Comparison of Eclectic Treatment with Webster-Stratton's Parents and Children Series in a Children's

Mental Health Center: A Randomized Controlled Trial. *Behavior Therapy, 29*, 221-240.

Timmer, S., Ware, L., Urquiza, A., & Zebell, N. (2010). The Effectiveness of Parent-Child Interaction Therapy for Victims of Interparental Violence. *Violence & Victims, 25*(4), 486-503.

U.S. Census Bureau. (2009, January 12). *Pennsylvania*. *Quickfacts: Pennslyvania.* Retrieved January 17, 2009, from http://quickfacts.census.gov.

Webster-Stratton, C, Reid, M., & Hammond, M. (2004). Treating Children with Early-Onset Conduct Problems: Intervention Outcomes for Parent, Child, and Teacher Training. *Journal of Clinical Child and Adolescent Psychology, 33*(1), 105-124.

Webster-Stratton, C. (2001). The incredible years: Parents, teachers, and children training series. *Residential Treatment for Children & Youth, 18*(3), 31-45.

Webster-Stratton, C. & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology, 65*(1), 93-109.

Wells, A. R. (2009). Metacognitive therapy in recurrent and persistent depression: a multiple-baseline study of a new treatment. *Cognitive Therapy & Research, 33*(3), 291-300.

Weisz, J. R., Doss, A. J., & Hawley, K. M. (2005). Youth psychotherapy outcome research: A review and critique of the evidence base. *Annual Review of Psychology, 56*, 337–363.

Wells, K. C. & Egan, J. (1988). Social learning and systems family therapy for childhood oppositional disorder: Comparative treatment outcome. *Journal of Comprehensive*

Psychiatry, *29*(2), 138-146.

Wright, M., Wilson, D., Griffin, S., & Evans, A. (2010). A qualitative study of parental modeling and social support for physical activity in underserved adolescents. *Health Education Research, 25*(2), 224-232.